The Economic Outlook For U.S. Cotton 2003

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U.S. and World Economy

The consensus among macroeconomists is for economic expansion to continue in 2003, but with each update of the outlook, the magnitude of the growth drops. While the recession in 2001 was modest by historical standards, so to has been the ensuing recovery. Among the many uncertainties on the horizon, it is clear that economic performance in 2003 hinges on the outcome of the current tensions with Iraq. A relatively quick settlement would bring softness to energy prices that have surged in recent weeks. On the other hand, an extended military action would lead to further increases in oil prices and the downstream effects that accompany higher energy costs.

The Conference Board's Consumer Research Center tracks a Consumer Confidence Index. It is designed to gauge the mood of the American consumer with regards to the economy. Recent numbers indicate a declining confidence in the face of a weak job market. The sagging confidence became more apparent as consumer spending during the holiday season came in below expectations.

The poor performance of U.S. equity markets has also contributed to the consumer's growing concerns about the economy. Significant declines occurred in both the Dow Jones average and the NASDAQ during 2002. With the uncertainties surrounding the economy, investors are reluctant to take an aggressive approach.

In an effort to stimulate the struggling economy, the Federal Reserve Bank made aggressive cuts in the federal funds rate throughout 2001. Last year, the Fed waited until November before making any additional cuts. The most recent decline brought the rate down to a 41-year low of 1.25%. Some analysts do not rule out further cuts later this year.

The soft recovery in the U.S. economy has brought with it a weakening of the U.S. dollar. There has been significant weakening relative to the Euro and, to a lesser extent, several Asian currencies. For an export-oriented commodity such as cotton, the weaker dollar increases the U.S. competitiveness in world markets. The weaker currency also reduces the attraction of the U.S. market for imports from abroad.

U.S. Gross Domestic Product

After contracting during the first three quarters of 2001, the U.S. economy began a modest recovery with growth of 2.7% in the final quarter of 2001 (Exhibit 1). Positive growth has been recorded in each of the first three quarters of 2002. After posting growth of 5% in the first quarter, economic growth slowed to only 1.3% in the second quarter due to a slowdown in private inventory investment. Growth rebounded to 4% in the third quarter as personal consumption expenditures accelerated and there was an upturn in state and local government spending.

The consensus for 2002 puts annual growth at 2.4%. Looking ahead to 2003, there are a number of uncertainties that have made the outlook extremely clouded. A recent survey by *The Economist* shows that expectations for this year range from a low of 1.4% to a high of 3%, with an average of 2.5%.

Recent economic news continues to temper the optimism regarding outlook. The most recent *Beige Book* by the Federal Reserve District reports "sluggish economic growth"

and "subdued economic activity" during the last quarter of 2002. Consumer spending during the holiday season was disappointing and may well fall below year-earlier levels. The possibility of war with Iraq has heightened concerns regarding the detrimental effects of higher energy prices.

During the most recent recession, the behavior in consumer spending was much different than what is typically expected. Normally, recessions are accompanied by serious declines in consumer spending, as was the case in 1991 (Exhibit 2). However, throughout 2001, the growth in consumer expenditures slowed but never turned negative. Low interest and inflation rates coupled with a strong dollar have permitted U.S. consumers to sustain high rates of real consumption. Consumer spending in the fourth quarter of 2001 showed the largest increase of any quarter in the past decade with durable goods accounting for the increase.

Consumer spending continued its steady performance throughout the first three quarters of last year, supporting the growth in GDP. Recent data call into question just how long we may continue to see strong spending. As noted earlier, preliminary indications show that spending during the holiday season was less than anticipated. The consumer's confidence in the U.S. economy took another hit in December, according to the Conference Board's Consumer Confidence Index. The index dropped to 80.3 in December, down from 84.9 in November and 97.3 a year ago. Rising unemployment and a weak job market are cited as the primary factors.

The manufacturing sector continues to struggle with weak demand and excess capacity. Capital spending remained flat during 2002 and has not shown positive change since the third quarter of 2000 (Exhibit 3). Excess capacity is expected to persist through the first half of 2003 given the current pace of economic expansion.

U.S. Employment

After contracting by more than 2 million jobs in 2001 (Exhibit 4), the labor market showed signs of recovery during much of 2002. Between January and September, employment grew by 1.7 million jobs. Since then, there has been steady erosion in the workforce with many of the losses coming in the manufacturing sector. In December, employment in general merchandise stores and in miscellaneous retail establishments (such as toy stores) fell after seasonal adjustments, as holiday hiring was less than usual.

The U.S. unemployment rate briefly flirted with rates under 4% in 2000 (Exhibit 5). These rates were historically low and generally considered to be unsustainable without fears of inflation. However, by the beginning of 2001 the unemployment rate had risen to 4.2%. As layoffs in manufacturing dotted the economic landscape for most of 2001, the unemployment rate grew steadily reaching 5.8% by year's end. The unemployment rate remained below 6% until the final two months of last year. Currently, unemployment is at its highest level since August 1994. The weak job market continues to be cited as a reason for declining consumer confidence.

Many economists doubt the hiring picture will improve until at least the second half of the year, if not later. Businesses are nervous about the economy, nervous about falling stock prices and nervous about the prospect of war in Iraq.

Interest Rates

The Federal Reserve Board's primary tool for influencing the economy is the federal funds rate – the interest rate that banks charge each other for overnight loans. During 2001, the Federal Reserve aggressively lowered the fund rate from 6% at the beginning of the year down to 1.75% by December (Exhibit 6). The Fed was content to leave the rate unchanged through much of 2002 as the economy showed slow, but unsteady, expansion. However, a weak job market and heightened geopolitical uncertainties led the Fed to lower the rate to 1.25 percent in November 2002. The latest cut, which puts the rate at a 41-year low, was done with the anticipation of stimulating spending and production without a serious threat of inflation.

If the economy shows new signs of stumbling, some economists said they wouldn't rule out an interest rate reduction early in 2003. However, if Congress passes an economic stimulus package later this year, it could take some of the pressure off of the Fed to reduce rates further.

For December 2002, the average 30-year mortgage rate fell to an all-time low of 6.05% (Exhibit 7). Since reaching 8.5% in mid-2000, mortgage rates have experienced a steady decline. The lower rates continue to be a supporting factor in a housing market that has surged despite the slowdown in economic activity. At this point, it appears that the housing market will remain strong as the Commerce Department reports that new home construction in December jumped to its highest level since 1986. In addition to new sales, lower interest rates had increased refinancing, which helps support consumer spending.

Federal Budget Situation

Budget projections by the Congressional Budget Office (CBO) prepared in August 2002 show outlays exceeding revenue for fiscal 2002 (Exhibit 8). This is the first budget deficit since fiscal 1997. A combination of lower revenues and increased outlays contribute to the deficit of $157 billion in 2002. CBO expects deficits to persist through fiscal 2005 (Exhibit 9).

Longer term, surpluses are expected to return, but only when certain tax cuts from the Economic Growth and Tax Relief Reconciliation Act of 2001 expire.

In the January issue of CBO's Monthly Budget Review, it was reported that the budget deficit during the first quarter of fiscal 2003 was significantly higher than year-earlier levels. CBO expects revised estimates of fiscal 2003 deficit to be larger than the $145 billion projected in August.

The increasingly pessimistic budget situation heightens the anxiety over possible budget reconciliations. If a budget reconciliation comes about, then it provides a situation where the policies of the 2002 farm bill could be changed to generate budget savings.

Inflation and Energy Prices

U.S. inflation, as measured by the Consumer Price Index (CPI), measured a very modest rate of 1.6% for 2002 (Exhibit 10). This matches the previous low set in 1998. Gains in housing, food and beverages, and medical care offset declines in the price indices of apparel and transportation. For 2003, a recent survey put projected inflation at 2%.

The Producer Price Index (PPI) measures the change in prices from the perspective of the seller. For 2002, the PPI indicates

deflation of 2.3%. Since 1970, there have been only two other years -- 1986 and 1998 – where the U.S. economy has experienced this degree of price deflation. If not for a recovery in prices of finished energy goods by the end of 2002, the deflation would have been much greater.

The movement in the PPI has led to a greater focus on the potential impacts of extended price deflation. While the drop in prices is good for consumers, it is painful for businesses that can not raise prices to keep up with natural increases in wages. Ultimately, the price deflation contributes to a weaker job market. At this point, most economists, including the Federal reserve Board, do not view extended deflation as a serious threat to the U.S. economy.

Higher energy prices and their subsequent impact on the economy represent perhaps the largest uncertainty in the outlook for the U.S. economy. A year ago, crude oil prices were less than $20 per barrel (Exhibit 11). Today, the strike in Venezuela and the potential for military action in Iraq have pushed prices above $30. There have been similar increases in the price of diesel fuel (Exhibit 12). Higher energy prices will increase the cost for manufacturers and ultimately scale back economic growth. A rule of thumb used by economists is that a $10 increase in oil prices cuts economic growth by 0.5% and adds about 1% to inflation.

Natural gas prices have also shown a steady increase through 2002 (Exhibit 13), surpassing $4/million cubic feet (mcf) in January 2003. Colder weather during the fourth quarter of 2002 led to greater depletion of underground storage levels. Spillover effects from the crude oil markets also contributed to the increase. Current projections are for natural gas prices to remain very near current levels in 2003.

U.S. Equity Markets

The major U.S. equity markets had a dismal performance in 2002. The Dow Jones Industrial Average (DJIA) began the year at 10,073 and reached the year's high on 10,635 on March 19 (Exhibit 14). The market moved steadily lower through the summer and fall, before bottoming at 7,286 on October 9. During the fourth quarter, the market rallied above 8,000 and began 2003 at 8,600. Performance during the early part of this year has been disappointing, as investors are concerned about the risk of war and reports of weaker earnings in the fourth quarter of 2002.

Movement of the NASDAQ during 2002 can be summarized as the continuation of a steady retreat from the high posted in early 2000 (Exhibit 15). The NASDAQ began the year at 1,979 and briefly topped 2,000 in early January. A steady decline began at that time and continued until October 9 when the market closed at 1,114.

World Economies

With estimated growth of 2.8% in 2002, the world economy outperformed 2001, but was still well below average growth of the previous decade (Exhibit 16). Better performance in the U.S. and developing economies more than offset dismal numbers from the European Union and Japan. For 2003, current expectations are for better growth than last year, but not to the levels observed in the late 1990s.

Performance of Asian stock markets looked very similar to that of the U.S equity markets. The Nikkei began the year at 10,871 and closed the year at 8,579, a loss of 21% (Exhibit 17). This comes on the heels of a 23% decline in 2001. The full

magnitude of the declines in stock values becomes apparent by realizing that the Nikkei topped 20,000 just three years ago.

The Hong Kong Hang Seng began 2002 at 11,351, and closed the year at 9,321, down 18% from the start of the year. The Hang Seng's performance is only slightly better than the Nikkei.

Exchange Rates

As 2002 began, the dollar was experiencing an extended period of strength relative to most major currencies. As the year progressed, the dollar weakened, with the most notable changes relative to the Euro (Exhibit 18). In February 2002, it took 1.15 euro to buy 1 dollar. By the end of the year, the Euro had strengthened to 0.98 euros per U.S. dollar. The gains in the euro reflect global investors' preference for foreign assets over U.S. assets.

The Japanese yen began the year at 133 against the dollar (Exhibit 19). By the close of 2002 the yen was trading at 122 to the dollar, a gain of 8.3% in purchasing power. The South Korean Won began the year at 1,311 against the dollar and closed the year at 1,206, a gain in value of 8% (Exhibit 20).

The second half of 2002 also saw a weaker dollar against three important currencies for trade in cotton textiles. The values of the Indian Rupee (Exhibit 21), the Indonesian Rupiah (Exhibit 22), and the Pakistani Rupee (Exhibit 23) improved relative to the U.S. dollar. The weaker dollar makes the U.S. a bit less attractive to Asian textile imports.

The Federal Reserve Board publishes a real exchange rate index comparing the dollar to a weighted average of currencies of important trading partners, excluding major developed economies. Mexico carries the largest weight, followed by China, South Korea and Taiwan. The index shows a dramatic strengthening of the dollar in 1998 due to currency devaluations associated with the Asian financial crisis (Exhibit 24). Between early 2000 and mid-2002, the index rose from 112 to 125.

A rising dollar pushes up the real purchase price of U.S. raw cotton to our foreign customers. But, equally important, a rising dollar makes purchases of foreign goods cheaper. Thus, imports of cotton textile products continue to rise even when the U.S. consumer reduced purchases of textile products.

A modest reversal in the exchange rate index began at the end of last year. For 2003, many economists expect to see a further weakening of the dollar but the magnitude is expected to be small.

Commodity Prices

The Commodity Research Bureau (CRB) maintains an index of commodity price movements (Exhibit 25). The commodities included in the index range from traditional U.S. agricultural commodities to heavily traded international agricultural products such as cocoa, coffee and sugar to metals and energy commodities.

The Index is a combination of arithmetic and geometric averaging which means its absolute value at any one time is not very informative. However, the movement in the index from any base point can be revealing.

In general, commodity prices recovered during 2002 and erased the losses that occurred during 2001. The index averaged 187 for January 2002 and climbed to 235 by December. While each of the major sub-components gained ground last year, the

largest increase occurred in the energy index, with a rise of 57%.

USDA publishes monthly indices of prices received by farmers (Exhibit 26). In January 2002, the index of crop prices was 93. Recovery in grain and oilseed prices due to concerns over the U.S. crop pushed the index to 114 by August, an increase of 23%. However, when crop production exceeded initial expectations, the index declined to 102 by December. Livestock prices suffered throughout 2002 with particular pressure in the dairy and pork sectors. The September 2002 value of 86 was the lowest in recent history.

U.S. Net Farm Income

USDA estimates net farm income at $36.2 billion for 2002 (Exhibit 27). This represents a decline of $9.6 billion from the 2001 level. Direct payments to farmers are pegged at $17 billion, constituting 47% of U.S. net farm income. In 2002, the livestock sector accounted for most of the drop in farm income. The value of livestock production is estimated to be $9 billion lower than 2001. Large supplies of animals for meat and milk contributed to lower market prices.

Higher crop prices led to an increase of $2.7 billion in crop receipts. However, the higher crop receipts were offset by lower government payments, thus negating any boost to overall farm income.

For 2002, payments received by farmers will come from a mix of programs under both the previous and the new legislation. USDA estimates that direct government payments will total $17 billion, down 18 percent from the previous year. Production flexibility payments, direct payments, and counter-cyclical payments are expected to amount to $8.6 billion in 2002.

Total production expenses for 2002 remain virtually unchanged from the 2001 level of $201 billion. Higher feed and labor costs offset declines in expenses for energy, interest, and purchased livestock.

U.S. Supply

Planted Acreage

U.S. farmers planted 13.96 million acres of cotton in 2002, a decrease of over 11% from the previous year (Exhibit 28). Upland area decreased 11.5% to 13.72 million acres and ELS area declined 9.8% to 243,600 acres. The reduction in cotton was far greater than expected by many in the industry. At the time of the 2002 NCC Annual Meeting, for example, expectations of 2002 cotton plantings were in the neighborhood of 14.7-14.8 million acres.

Upland area in the Southeast declined 3.1% to 3.49 million acres in 2002 (Exhibit 29). Growers in North Carolina planted 940,000 acres, a decrease of 3.1% from the previous year. In Alabama, a 3.3% decrease to 590,000 acres occurred, while upland area in Georgia declined 2.7% to 1.45 million acres. In South Carolina, planted area declined 3.3% to 290,000 acres. In Virginia, planted area declined 4.8% to 100,000 acres; a 4.0% decline to 120,000 acres occurred in Florida.

In the Mid-South 3.60 million acres of upland cotton were planted in 2002, a decline of 21.7% from the previous year (Exhibit 30). The largest decline occurred in Louisiana where upland area fell 40.2% to 520,000 acres, followed by Mississippi with a decrease of 27.8% to 1.17 million acres. In Arkansas, upland area decreased 11.1% to 960,000 acres. Growers in Tennessee reduced upland area 8.1% to 570,000 acres; a 6.2% decrease to 380,000 acres occurred in Missouri.

Growers in the Southwest reduced upland area 6.8% to 5.88 million acres in 2002 (Exhibit 31). Much of the reduction occurred in Texas with upland area down 6.7% to 5.60 million acres. A decline of 25.9% to 200,000 acres was experienced in Oklahoma while the Kansas expansion continued with growers planting a record 80,000 acres, almost double that of the previous year.

In the West, growers reduced upland area 24.6% to 749,000 acres (Exhibit 32). California accounted for much of the decline as growers planted only 480,000 acres, down 23.8% from the previous year. Since enactment of the 1996 farm bill, the state's cotton acreage has declined by over half. Decreases of 27.1% and 20.6% occurred in Arizona and New Mexico, respectively.

ELS plantings fell moderately in 2002, even as upland acreage was also being reduced (Exhibit 33). In California, 210,000 acres of ELS cotton were planted in 2002, down 12.5% from the previous year. Growers in Arizona increased ELS area 2.0% to 8,000 acres. In New Mexico, ELS area increased 36.5% to 7,100 acres and an increase of 8.8% to 18,500 acres occurred in Texas.

Harvested Acreage

Over the past five years, abandonment has averaged 12.31% due largely to repeated droughts. In the 2002 season, growers abandoned 11.10% of their planted acres (Exhibit 34), leaving 12.41 million acres for harvest. As usual, Texas accounted for much of the abandonment. In 2002, growers in the state abandoned 1.10 million acres of upland and ELS cotton, almost 20% of the total planted.

Yields

The national average yield for 2002 is estimated to be 663 pounds per harvested acre, 13 pounds higher than the preceding 5-year average (Exhibit 35). The 2002 upland yield is estimated to be 651 pounds, 10 pounds above the 5-year average. The estimated ELS yield of 1,286 pounds is 191 pounds above the 5-year average.

In the Southeast, the regional average yield is an estimated 495 pounds, down 139 pounds from the 5-year average as all states experienced below-average yields (Exhibit 36). The largest decline occurred in North Carolina where the estimated yield of 412 pounds is 275 pounds below average. Substantial declines also occurred in South Carolina (-275 pounds to 328), Virginia (-259 pounds to 485), and Florida (-193 pounds to 346). Somewhat smaller decreases were experienced in Alabama (-75 pounds to 511) and Georgia (-43 pounds to 582).

The regional average yield in the Mid-South of 803 pounds is 104 pounds above the 5-year average (Exhibit 37). All states in the region experienced above-average yields. In Missouri, the estimated yield of 796 pounds is 137 pounds above the preceding 5-year average while an increase of 109 pounds to 861 occurred in Arkansas. In Tennessee, the estimated yield of 729 pounds exceeds the 5-year average by 102 pounds. Yields also are well above-average in Mississippi (+95 pounds to 826) and Louisiana (+83 pounds to 727).

The average yield for the Southwest of 534 pounds is approximately 60 pounds higher than the preceding 5-year average (Exhibit 38). In Texas, the estimated upland yield is 533 pounds, about 59 pounds higher than the 5-year average. The estimated yield in Oklahoma is also 533 pounds, about 38 pounds higher than average. Growers in Kansas experienced a record yield of 608 pounds, almost 240 pounds higher than the 5-year average.

The average upland yield in the West is an estimated 1,356 pounds, up from a 5-year average of 1,196 pounds (Exhibit 39). The largest improvement occurred in New Mexico with an estimated yield of 960 pounds, 238 pounds above average. An increase of 217 pounds to 1,439 pounds is estimated for California. A small improvement was experienced in Arizona with an estimated yield of 1,262 pounds, about 18 pounds higher than the 5-year average.

The national average ELS yield is estimated to be 1,286 pounds, significantly above the 5-year average of 1,095 pounds (Exhibit 40). In California the estimated ELS yield is 1,332 pounds, up 174 pounds from the 5-year average. In Arizona a 104 pound improvement to 972 pounds is estimated and a 205 pound increase to 1,023 is reported for Texas. In New Mexico, the 2002 yield of 946 pounds is 238 pounds above the 5-year average.

Production

USDA's latest estimate places the 2002 U.S. cotton crop at 17.15 million bales (Exhibit 41), 3.16 million bales smaller than the previous year due both to lower acreage and lower yields. The first objective production estimate by USDA (released in August) projected a crop of 18.44 million bales. However, some areas began to experience torrential rains heading into harvest, from which the

crops were unable to recover. As a result, USDA's crop estimate was steadily reduced. The upland crop is an estimated 16.50 million bales, about 387,000 bales lower than the 5-year average. ELS production is estimated to be 649,000 bales, 98,000 bales higher than the average crop size over the past five years.

The Southeast produced 3.32 million bales of upland cotton in 2002, accounting for 20.2% of the total upland crop (Exhibit 42). This is down 911,000 bales from the 5-year average. Growers in North Carolina produced a crop of only 790,000 bales, down 833,000 bales from the previous year because of the over 50% reduction in yields. Significantly smaller crops were also produced in Georgia (-570,000 bales), Alabama (-345,000 bales), South Carolina (-293,000 bales), Virginia (-102,300 bales), and Florida (-75,000 bales).

Upland production in the Mid-South was 5.80 million bales, about 350,000 bales above the 5-year average. For 2002 the region accounted for 35.2% of the total upland crop. With a shortfall of 145,000 bales, Louisiana was the only state to produce a crop smaller than average. Growers in Mississippi produced a crop of 1.98 million bales, 159,000 bales larger than its 5-year average. Increases for other states in the region were led by Arkansas (+134,000 bales), followed by Tennessee (+115,000 bales), and Missouri (+86,000 bales).

The upland crop in the Southwest is an estimated 5.28 million bales, up 695,000 bales from the 5-year average. The region accounted for 32.0% of total upland production in 2002. In Texas the estimated upland crop of 5.00 million bales is 602,000 bales larger than average. The 2002 Oklahoma crop exceeds its 5-year average by 37,000 bales and the Kansas crop is 56,000 bales larger than average.

The West produced 2.09 million bales of upland cotton in 2002, about 521,000 bales below the region's 5-year average. The region accounted for 12.7% of total upland production in 2002. California growers produced a crop of 1.43 million bales, down 349,000 bales from the 5-year average. In Arizona the upland crop of 560,000 bales was 170,000 bales below the 5-year average.

The ELS crop of 649,000 bales represents an increase of 98,000 bales from the 5-year average. The California ELS crop was 104,400 bales larger than the 5-year average (Exhibit 43). The state accounted for 89.4% of total U.S. ELS production in 2002. ELS production in New Mexico was 3,800 bales higher than average while crops in Arizona and Texas were lower by 5,300 and 4,800 bales, respectively.

Stock Levels

USDA estimated U.S. cotton stocks at the beginning of 2002 marketing year at 7.43 million bales, an increase of 1.43 million bales from the previous year (Exhibit 44). This represents the largest stock levels since the beginning of the 1986 marketing year.

Total Supply

Total supply for the 2002 marketing year is estimated to be 24.60 million bales, down from 26.32 million the previous year (Exhibit 45). Beginning stocks for 2002 are up 1.43 million bales from the previous year, but the 2002 crop is almost 3.16 million bales smaller.

Current projections place imports at approximately 30,000 bales. Over the past five years, total supply has averaged about 21.9 million bales.

Upland Cotton Quality

With much of the 2002 upland cotton crop classed, the national average staple length (measured in 32nd of an inch) is 34.4, down from a 5-year average of 34.8 (Exhibit 46). The Southeast is the region most affected. The average staple length of 33.8 in the region is down from a 5-year average of 34.3. In the Mid-South, staple length has averaged 34.6, down slightly from the 5-year average of 34.7. The average staple length in the West of 36.5 is 0.5 longer than the 5-year average. In the Southwest, the average staple length of 33.6 exceeds the 5-year average by 0.2. The national average strength for upland cotton is 28.6 grams/tex, marginally higher than the 5-year average of 28.2 grams/tex. Strength is up in the Southwest (from 28.0 grams/tex to 29.0 grams/tex) and West (from 30.8 grams/tex to 31.7 grams/tex). In the Mid-South, the strength for 2002 is approximately equal to the 5-year average of 27.9 grams/tex. In the Southeast, however, strength has fallen 0.5 grams/tex to 27.2.

The average micronaire of the 2002 upland cotton crop is 45.9, up significantly from the 5-year average of 44.1 (Exhibit 47). The largest increase is found in the Southeast, up 3.7 to 48.0. In the Mid-South and Southwest, micronaire has increased 1.8 to 47.7 and 43.7, respectively. In the West, however, micronaire has fallen slightly to 43.4. Color in the 2002 crop is significantly worse than average with only 67.4% of the crop grading 41 or better, down from the 5-year average of 79.3%. By far the most dramatic deterioration has occurred in the Southeast with only 31.1% of the 2002 crop grading 41 or better. In comparison, the 5-year average for the region is 78.1%. A significant deterioration in color was also experienced in the Mid-South with 65.3% of the 2002 crop grading 41 or better, down from the 5-year average of 77.7%. The percent of the crop grading strict low or better has increased moderately in the Southwest (from 74.1% to 80.5%) and West (from 94.0% to 97.3%).

CCC Loan Stocks

As of January 14, 2003, outstanding CCC loan stocks were approximately 5.8 million bales (Exhibit 48). Mid-South loan entries dominated, accounting for about 48.5% of the outstanding loans. The Southwest accounted for 27.4%, the Southeast 13.6% and the West about 10.4%. Over 71% of the cotton under loan was Form G (cooperative) while the remaining 29% was Form A (producer).

At the comparable point in the 2001 season, loan stocks were approximately 4.7 million bales. Most of this cotton was eventually redeemed. Total loan forfeitures of 2001 crop upland cotton through December 31, 2002 (the last available reporting date) were 420,882 bales; loans for 67,272 bales were still outstanding. Loans for about 40,943 of these bales were scheduled to mature in December 2002 with loans for another 13,970 bales scheduled to mature in January 2003.

Cotton Prices

Upland Cotton Prices

As calendar 2002 ended, price prospects for cotton appeared increasingly favorable with the spot 4134 cotton price

reaching 48 cents/lb., up from just 32 cents/lb. at the beginning of the year (Exhibit 49). Upland cotton prices actually weakened during the early part of last year as the spot 4134 price declined below 29 cents by early May. The market then began to strengthen and spot 4134 values eventually reached 40 cents in late-June. At this point, the market recovery stalled and spot 4134 cotton generally traded between 37 cents and 41 cents through late-October. Cotton prices then once again began to strengthen and spot 4134 cotton reached 48 cents in late-December. Through mid-January 2003 spot 4134 values have continued to trade in the 48-49 cents/lb. range. Thus far into the 2002 crop year, spot 4134 values have averaged about 42 cents/lb.; the average spot 4134 value for 2001 crop cotton was about 33 cents/lb.

World cotton prices have followed a similar path. Beginning calendar 2002 at about 43 cents/lb., the "A" Index underwent a small but steady decline through winter and early spring (Exhibit 50). By early May, the "A" had fallen below 39 cents. The "A" Index then began to strengthen, reaching 46 cents by the end of June. The "A" has since continued to strengthen and reached 57 cents by mid-January 2003. Thus far through the 2002 marketing season, the "A" Index has averaged about 51.5 cents/lb., up from less than 42 cents/lb. the previous year.

ELS Prices

ELS cotton prices continue to hover around the ELS base loan rate (Exhibit 51). The 44-3 ELS spot price fell below 80 cents/lb. in December of 2001, eventually falling to 78.60 cents/lb. in March of 2002. ELS prices then began a slow recovery with the spot price reaching 81.75 cents/lb. in late 2002.

Cottonseed Situation

Cottonseed Supply

USDA estimates 2002 cottonseed production at 6.42 million tons, down from 7.45 million the previous year (Exhibit 52). A regional breakdown of production shows that the Mid-South produced 2.20 million tons or about 34% of the total, the largest of any region (Exhibit 53). This was followed by the Southwest with estimated production of 2.09 million tons for a 33% share. The Southeast produced about 1.15 million tons, or 18% of total production, and the West accounted for 977,000 tons, 15% of the total. Summing production, imports of 130,000 tons and beginning stocks of 400,000 tons, total cottonseed supply for 2002 is an estimated 6.95 million tons (Exhibit 54).

Disappearance and Stock Levels

USDA's latest estimate places disappearance at 6.55 million tons, down 1.25 million tons from the previous year (Exhibit 55). Crush is estimated at 2.62 million tons, down 171,000 tons from 2001 while expected exports are 6,000 tons higher at 280,000. Other uses (primarily for feed purposes) are expected to decrease 1.09 million tons to 3.65 million. As a result, ending stocks are estimated to have fallen 5,000 tons from the previous year to 395,000 tons (Exhibit 56).

Upland Cotton Farm Program

New farm legislation was adopted effective for the 2002 crop year. This legislation, titled the "Farm Security and Rural Investment Act of 2002 (FSRIA)," supplants the 1996 FAIR Act. The duration of FSRIA is the 2002 through 2007 crop years. To a large extent

FSRIA builds upon the FAIR Act, maintaining many of the provisions of the previous legislation but adding a new counter-cyclical payment program. The counter-cyclical payments, in effect, institutionalize the *ad hoc* market loss assistance payments of previous years. FSRIA also provides options for producers to update program acres and yields, as well as establishing soybeans and minor oilseeds as program crops.

Base Loan Rates, Marketing Loans and LDP's

The base loan rate for upland cotton is set at 52.00 cents/lb. for the duration of FSRIA (See table on page 15). Local (warehouse) rates will differ from the base loan rate by approximately the transportation cost relative to the Southeast mill district. For the 2002 though 2007 crops, the base loan rate for ELS cotton is 79.77 cents/lb. Non-recourse loans will be available for all loan commodities produced on farm, whether or not base acreage and yield are established for the specific crop. Loans are for nine months from the first day of the month following entry. This is a reduction of one month from the loan term for upland cotton under FAIR. Upland cotton loans may be repaid at the lower of the adjusted world price or the loan rate plus interest and storage. ELS loans will be repaid at the loan rate plus interest and storage. Non-recourse loans will be made available to producers for co-mingled commodities in unlicensed storage facilities if redeemed immediately.

Marketing loan gains will continue to be payable as the difference between the base loan rate and the adjusted world price (AWP) when the former exceeds the latter. For eligible producers that agree to forego placing upland cotton in CCC loan, the marketing loan gain is available as a loan deficiency payment (LDP). Through January 15, 2003, loans for approximately 6.3 million bales (480-lb.) had been redeemed, generating a total marketing loan gain of about $400 million. LDP's had been claimed on about 2.4 million bales (480-lb.), generating a gain of about $156 million.

Direct Payments

FSRIA continues the direct payments introduced in the FAIR Act (then known as the AMTA payments). For upland cotton, the direct payment under FSRIA is equal to 6.67 cents/lb. for the duration of the legislation (Exhibit 57). There is no direct payment available for ELS production. Direct payments are paid on 85% of an eligible producer's base production (base acres times program yield). They are decoupled from contemporaneous production decisions. Producers may make a one time election to establish (update) base acres, as discussed below. The payment yield for direct payments, however, will be equal to the 2002 AMTA payment yield (or its equivalent) for traditional program crops. For oilseeds, the payment yield for an individual producer will be established as: (1998-2001 average yield) times [(national average yield for 1981-1985) divided by (national average yield for 1998-2001)]. The ratio of the 1981-1985 and 1998-2001 average yields is about 78%; this factor is used to adjust oilseed payment yields such that they are comparable to payment yields for traditional program crops. (See table on page 15)

Target Prices

The target price concept was reintroduced with FSRIA, though operation of the program differs from

previous (pre-FAIR Act) farm bills. For upland cotton, the target price for the duration of FSRIA is 72.40 cents/lb. For some other commodities, the target price for 2004-2007 is slightly higher than that for 2002-2003. And, there is no target price for ELS cotton.

These target prices are used in the calculation of counter-cyclical payments. These payments essentially replace the *ad hoc* market loss assistance payments of recent emergency assistance packages. The counter-cyclical payment rate is determined as: (target price) minus (direct payment) minus (greater of 12-month average price received or loan rate). When the sum of the direct payment and the 12-month average price exceeds the target price, the corresponding counter-cyclical payment is zero. Counter-cyclical payments are decoupled from production, as are the direct payments. However, a producer can choose to update both base acres and program yields for determination of the counter-cyclical payments. (See table on page 15)

Base Acres and Program Yields

Producers may make a one time election to establish base acreage of program crops. Their choices are as follows:

1. Establish base by using acreage on which the 2002 AMTA payments were calculated and adding average acreage planted to oilseeds for 1998-2001 (some limits apply); or
2. Update all base acres using average 1998-2001 planted and **prevented** planted acreage.

If a producer does not make a choice, then the Secretary of Agriculture will use the 2002 AMTA payment acres and add oilseeds. The sum of covered commodity base acres, base acres for peanuts and acreage enrolled in CRP, WRP or other conservation programs which restrict or prohibit production, cannot exceed actual cropland on farm with an exception for double-cropping.

As noted above, the FSRIA yield for direct payments is equal to the 2002 AMTA payment yield or its equivalent. However, producers are allowed to update payment yields for counter-cyclical payments if they so choose, provided they choose also to update base acres (option 2 above). Their options for updating program yields are as follows:

1. 2002 AMTA payment yield or equivalent; or
2. 2002 AMTA payment yield plus 70% of difference between 2002 payment yield and 1998-2001 average yield/planted acre; or
3. 93.5% of 1998-2001 average yield/planted acre.

If payment yields are updated using option (2) or (3), years with "zero" planted acreage are excluded and 75% of the county average yield is inserted for any year when average yield/planted acreage is less than 75% of county average. A producer can select only one method for determining program yields, which will apply to all crops on a farm.

Producer Agreement Requirements for Payments

To be eligible for payments, a producer must:

1. Comply with conservation requirements;
2. Comply with planting flexibility requirements;
3. Maintain land in an agricultural or conserving use;
4. Submit annual acreage reports.

Payment Limitations

Payment limitations were modified under FSRIA. For direct payments, the limit is $40,000 per person; for counter-cyclical payments, $65,000 per person; and for marketing loan gain/loan deficiency payments, $75,000 per person. There are separate limits for peanuts. The 3-entity, spouse eligibility and actively engaged rules are unchanged from the FAIR Act. Also, marketing certificates will continue to be available for loan redemptions. Payments will now be subject to a means test, however. Entities (excluding general partnerships and joint ventures) with 3-year average adjusted gross income in excess of $2.5 million are ineligible for all programs if less than 75% of this income is derived from farming, ranching or forestry activities. Also, FSRIA created a commission to review the effect of payment limitations with a requirement to report to Congress one year after enactment.

Cotton Competitiveness Provisions

The 3-Step competitiveness program was initially written into law under the 1990 FACT Act and extended with minor revisions in the 1996 FAIR Act. Following exhaustion of its funding in 1998, the competitiveness program was reauthorized in 1999 though certain program adjustments were made in order to achieve an industry consensus. Among these, the 10-week count towards opening a Step 3 quota was reduced to 4 weeks and both Step 2 certificates and Step 3 quotas can now be available simultaneously, eliminating the "exclusivity" provision of the earlier program. Another change was the inclusion of an additional trigger for opening a Step 3 quota which allows imports whenever the U.S. stocks-to-use ratio falls below 16%, exclusive of already landed raw cotton imports. Finally, total landed Step 3 imports in any given crop year were capped at 5 weeks of domestic mill use. Previously, imports had been limited only by the number and size of the open Step 3 quotas. FSRIA continues the 3-Step competitiveness program with only one significant change – the 1.25 cent/lb. threshold for the calculation of Step 2 payments and Step 3 quota counts has been eliminated through July 31, 2006.

Export Promotion

The funding for the Market Access Program (MAP) was increased from the current level of $90 million annually to $200 million annually by 2006. Funding for the Foreign Market Development (FMD) program was increased from $27.5 million to $35 million/year. These two programs have been vital to the industry's efforts to build foreign demand for U.S. cotton and cotton products.

Loan Rates, Direct Payments and Target Prices

	Loan Rates		Direct Payment[1/]	Target Price[2/]	
	2002-03	2004-07	2002-07	2002-03	2004-07
Upland Cotton (lb.)	0.520	0.520	0.0667	0.724	0.724
ELS Cotton (lb.)	0.7977	0.7977	N/A	N/A	N/A
Corn (bu.)	1.98	1.95	0.28	2.60	2.63
Sorghum (bu.)	1.98	1.95	0.35	2.54	2.57
Barley (bu.)	1.88	1.85	0.24	2.21	2.24
Oats (bu.)	1.35	1.33	0.024	1.40	1.44
Wheat (bu.)	2.80	2.75	0.52	3.86	3.92
Soybeans (bu.)	5.00	5.00	0.44	5.80	5.80
Min. Oilseeds (lb.)	0.096	0.093	0.008	0.098	0.101
Rice (cwt.)	6.50	6.50	2.35	10.50	10.50
Peanuts (ton)[3/]	355.00	355.00	36.00	495.00	495.00

[1/] Direct payments are decoupled from production and price and 2002 payments will be adjusted for 2002 AMTA payments already received (FAIR Act 2002 AMTA rate – 0.0572 cents/lb);
[2/]Target price (counter-cyclical) payments are decoupled from production;
[3/]Peanut program also authorizes quota buyout of 11 cents/lb. for 5 years.

2003 Planting Intentions

Farm Bill

There was a great deal of uncertainty regarding the farm program environment as planting decisions for the 2002 crop were being finalized. A conference report reconciling the House and Senate farm bills was not reported out of committee until April of 2002 and the bill was not signed by the President until May of 2002. As we head into the 2003 planting season, however, the farm program environment is considerably more stable. Importantly, for assessing acreage intentions, full planting flexibility was maintained under FSRIA (with the exception of planting certain fruits and vegetables on program acres); hence, market forces will continue to drive most acreage decisions. The farm bill changes likely to have the most significant impact on cotton acreage are (1) the adjustment of loan rates for most commodities, and (2) the elimination of the peanut quota program in lieu of support mechanisms comparable to those of other program commodities.

Price Prospects

Both U.S. and world cotton prices have strengthened significantly over the past year. Beginning calendar 2002 at 43 cents/lb., the "A" Index eventually reached 56.50 cents by year's end (Exhibit 58). Likewise, New York contract values have followed a similar pattern. December 2002 New York futures were trading at about 32 cents/lb. as calendar 2002 began; as calendar 2003 begins, December 2003 futures are trading at about 58 cents/lb. However, these higher prices do not necessarily translate into increased returns for producers. Assuming that (a) the current spread between the "A" Index and nearby New York futures is maintained the net price received by a grower for 2003 crop cotton at harvest would be approximately equal to the base loan rate of 52 cents/lb. as the value of equity offers would be minimal. Equity offers can be approximated by subtracting from the nearby New York value the cost to tender (about 7 cents/lb.) and the cost of loan redemption. With AWP below the base loan rate, the cost of loan redemption is the AWP (calculated as the "A" minus a transportation and quality adjustment, currently about 13 cents/lb.).

December 2003 NYBT futures have traded at significantly higher values than the December 2002 contract at comparable points in their history (Exhibit 59). Over the August 1 through mid-January period for each contract, in fact, December 2003 has averaged over 12 cents/lb. higher than December 2002. For the past couple of months, the spread has been closer to 15 cents/lb. September 2003 corn futures have likewise traded at a premium relative to September 2002 futures (Exhibit 60). Between August 1 and mid-January, September 2003 futures have averaged about 13 cents/bushel higher than the September 2002 contract. Even though September 2003 corn futures have declined in recent months, current values would still suggest a cash price for corn well in excess of the loan rate of $1.98/bushel. The November 2003 soybean contract has also traded significantly above the November 2002 contract for much of its life (Exhibit 61). Currently, November 2003 soybeans are trading at over 50 cents/bushel above the comparable November 2002 values. Depending on the local basis, however,

the implied harvest-time cash price for soybeans could still be below the loan rate.

As growers consider their 2003 planting decisions, they are faced with considerable uncertainty about pricing prospects for cotton and alternative crops. Even with the recent increase in cotton prices, expected grower returns would be consistent with loan value or just slightly better for the 2003 crop. A similar situation exists with regard to soybeans. Corn prices have fared relatively better than either cotton or soybeans; as a result, some cotton acreage could be switched to corn for 2003.

2003 U.S. Cotton Acreage Intentions

In mid-December 2002, the NCC mailed out its annual early season planting intentions survey. The response rate on the latest survey was almost 10%, comparable to the typical return rate. As always, the survey results should be viewed as a measure of grower intentions prevailing at the time the survey was conducted. Changing climate and market conditions could cause actual plantings to be significantly different from growers' stated intentions.

Beginning with the Southeast, survey results indicate a 5.0% decrease in the region's upland area to 3.32 million acres. The largest absolute decline is shown for Georgia where growers indicate a reduction of 6.7% to 1.35 million acres. However, many industry observers expect the state's cotton acreage to be essentially unchanged in 2003. A decrease of 19.4% to 234,000 acres is indicated in South Carolina while growers in Virginia intend to reduce cotton acreage by 10.6% to 89,000 acres. A 6.7% reduction to 877,000 acres is indicated in North Carolina and a 6.5 % decline to 112,000 acres is shown for Florida. In contrast, growers in Alabama intend to plant 652,000 acres in 2003, an increase of 10.5% from the previous year.

In the Mid-South, survey results show that a moderate increase is intended for 2003. Growers in the region intend to plant 3.72 million acres in 2003, an increase of 3.3% from the previous year. However, it should be noted that this increase largely reflects the implausible 28.2% increase in Tennessee to 731,000 acres in 2003. Were growers in the state to plant the same acreage as the previous year, cotton acreage in the region would likewise be essentially unchanged. Growers in Mississippi indicate a small increase of 2.4%. A reduction of 3.2% to 504,000 acres is indicated for Louisiana. Growers in Missouri and Arkansas intend to decrease cotton acreage by 3.3% and 4.3%, respectively.

Survey results indicate that growers in the Southwest intend to increase upland area by 3.2% to 6.07 million acres in 2003. Texas growers intend to plant 5.72 million acres in 2003, an increase of 2.2% from the previous year. In Oklahoma, an increase of 24.9% to 250,000 acres is indicated. Growers in Kansas intend to plant 98,000 acres of upland cotton in 2003, an increase of 23.0% from the previous year.

An increase in upland area of 1.1% to 757,000 acres is indicated by growers in the West. In California, intended area of 474,000 acres represents a 1.2% decline from the previous year. It appears that much of this acreage is being shifted to

crops other than cotton, given that the state's ELS acreage is also expected to decline. Growers in Arizona intend to decrease upland area by 6.4% to 201,000 acres while a 50.9% increase to 81,000 acres is indicated for New Mexico. However, the results for New Mexico should be regarded with some skepticism given the relatively small number of survey respondents.

Summing across the 4 regions gives intended 2003 upland cotton area of 13.86 million acres, 1.1% higher than 2002.

Survey results indicate that U.S. cotton growers intend to reduce ELS plantings 24.7% to 184,000 acres in 2003. In California, intended ELS area of 159,000 acres represents a 24.3% decrease from the previous year. A decrease of 55.1% indicated by Arizona growers would lower acreage to 3,600 acres. Growers in New Mexico intend to reduce ELS plantings by 22.8% to about 5,500 acres while a 16.6% decline to 15,400 acres is indicated for Texas.

Bringing together the upland and ELS cotton intentions shows U.S. all-cotton plantings in 2003 of 14.05 million acres, 0.6% higher than the previous year. (See table on page 19) Assuming average abandonment, harvested area would be approximately 12.70 million acres (Exhibit 62).

2003 U.S. Cotton and Cottonseed Supply

Applying each state's 5-year average yield to its 2003 projected harvested acres generates a crop size of 17.10 million bales, 16.64 million bales of upland cotton and 453,000 bales of ELS cotton. Allowing for moderate yield and abandonment variations suggests a reasonable production interval of 13.9 million to 20.3 million bales. Using the point estimate of projected yields, projected upland production by region is: Southeast = 4.00 million bales; Mid-South = 5.66 million bales; Southwest = 5.07 million bales; and West = 1.91 million bales. Combining projected production with expected carryover of 6.30 million bales gives a total U.S. supply of 23.4 million bales (Exhibit 63).

For cottonseed, multiplying the point forecast of lint production by the 5-year average lint-seed ratio generates expected production of 6.38 million tons. Allowing for moderate yield variations generates a reasonable production interval of 5.3 million to 7.6 million tons. Given 395,000 tons in beginning stocks and assuming imports of 100,000 tons, along with production of 6.38 million tons, gives 2003 cottonseed supply of 6.87 million tons (Exhibit 64).

Prospective 2003 U.S. Cotton Plantings

	2002 Actual (Thou.) 1/	2003 Intended (Thou.) 2/	Percent Change
SOUTHEAST	**3,490**	**3,317**	**-5.0%**
Alabama	590	652	10.5%
Florida	120	112	-6.5%
Georgia	1,450	1,352	-6.7%
North Carolina	940	877	-6.7%
South Carolina	290	234	-19.4%
Virginia	100	89	-10.6%
MID-SOUTH	**3,600**	**3,719**	**3.3%**
Arkansas	960	919	-4.3%
Louisiana	520	504	-3.2%
Mississippi	1,170	1,198	2.4%
Missouri	380	367	-3.3%
Tennessee	570	731	28.2%
SOUTHWEST	**5,880**	**6,071**	**3.2%**
Kansas	80	98	23.0%
Oklahoma	200	250	24.9%
Texas	5,600	5,723	2.2%
WEST	**749**	**757**	**1.1%**
Arizona	215	201	-6.4%
California	480	474	-1.2%
New Mexico	54	81	50.9%
TOTAL UPLAND	**13,719**	**13,864**	**1.1%**
TOTAL ELS	**244**	**184**	**-24.7%**
Arizona	8	4	-55.1%
California	210	159	-24.3%
New Mexico	7	5	-22.8%
Texas	19	15	-16.6%
ALL COTTON	**13,963**	**14,048**	**0.6%**

1/ USDA-NASS.

2/ National Cotton Council.

U.S. Market

U.S. Textile Industry

Calendar year 2002 once again tested the resiliency of the U.S. textile industry. Despite the leveling off of plant closings throughout the course of 2002, mills continued to face pressure from increasing imports. According to the American Textile Manufacturers Institute (ATMI), approximately 40 textile mills closed in 2002 compared to over 110 closings in 2001. Preliminary data from the U.S. Bureau of Labor Statistics indicate that textile industry employment in the year 2002 fell by approximately 53,000 workers as opposed to a loss of almost 140,000 workers in the year 2001. These figures represent persons in both the textile mill products sector and the apparel and other textile products sector.

Mill Use

Mill use of cotton declined for the sixth consecutive year in calendar 2002 and is estimated at 7.62 million bales, 4.6% below the amount consumed in 2001 and over 23% below the 9.93 million bales consumed in 2000 (Exhibit 65). The decline in mill use can be directly attributed to another year of record levels of imports and a weak U.S. economy. For the coming calendar year, NCC forecasts domestic mill use of cotton at 7.4 million bales. The latest USDA estimate for mill use in the 2002 crop year is 7.5 million bales (Exhibit 66). NCC forecasts domestic mill use of cotton at 7.3 million bales for the 2003 crop year.

Consider that by Department of Commerce accounting methods there are generally 261 effective working days in a calendar year. Hence, a 1,000 bale reduction in daily mill use equates to a reduction of 261,000 bales in annual mill use (Exhibit 67). A 4,000 bale reduction in daily mill use totals to over one million bales on an annual basis.

At its trough, average daily mill use in December 2001 was 23,327 bales as compared to 39,791 bales in August 2000. Perhaps as a sign that the textile industry is finally beginning to stabilize, average daily mill use has since rebounded to about 30,000 bales.

Cotton is not the only fiber that has experienced a decline in mill use over the past few years. U.S. mill consumption of man made fibers has also been negatively affected by foreign competition as well as rising petroleum costs in the beginning of 2001. NCC estimates mill use of man made fibers at 19.7 million bales for 2002, down 2.4% from 2001 (Exhibit 68).

It is important to note that while reliable mill use and trade data is available for 2002, the most recent annual data for U.S. production of apparel and home furnishings is obtained from NCC's annual publication *Cotton Counts Its Customers.* The latest edition contains production data through 2001. The 2003 edition, containing yearly data for 2000, 2001 and 2002, is scheduled to be released in late 2003.

The 2002 edition of *Cotton Counts Its Customers* shows that the apparel industry has also been hit hard by increasing imports. Total apparel production in 2001 fell to 8.1 million

bale equivalents, 9.6% below the 2000 production figure of 9.0 million bales (Exhibit 69). While all apparel segments experienced a decline in production, men's and boys' apparel – the largest segment of apparel – experienced the largest decline, dropping 13.2% in 2001. Children's apparel saw the second largest decline of 11.0% and women's, misses' and juniors' followed with a 4.4% drop in 2001. In spite of the decline in total apparel production, cotton's share of production remained unchanged at 69% in 2001. Production of cotton apparel fell 9.5% in 2001 to 5.6 million bales (Exhibit 70).

Production of home furnishings in the U.S. also decreased in 2001. The latest available estimates indicate that total production, excluding carpeting, was down 10.0% to 5.64 million bales from 6.27 million bales in 2000 (Exhibit 71). Use of cotton in home furnishings, excluding carpeting, showed a slight decrease in 2001. Cotton's share of home furnishings production decreased to 40.9% in 2001, down from 41.0% in 2000. Total cotton consumed in home furnishings, excluding carpeting, for 2001 was 3.34 million bales.

Net Domestic Consumption

Net domestic consumption is another measure of the U.S. market. Net domestic consumption, or equivalently, retail consumption, measures not only cotton spun in the U.S. (mill use), but also cotton consumed through textile imports. After a year of decline, net domestic consumption of cotton increased in 2002 (Exhibit 72). Domestic consumption of cotton is estimated at 20.7 million bales for calendar 2002, up 7.6% from 2001 consumption of 19.2 million bales. Total fiber consumption in 2002 is estimated at 47.5 million bale equivalents. Cotton's share of net domestic consumption in 2002 is estimated at 43.5%, up slightly from 42.5% in 2001.

All of the increase in net domestic consumption for 2002 was due to the increase in imported goods, especially imports of textiles from China. Imported cotton textiles grew from 15.7 million bale equivalents in 2001 to an estimated 17.4 million in 2002 (Exhibit 73). For the years 1993 through 1996, imports of textile and apparel products grew at an average rate of 6.9%. For the 4 year period following the Asian financial crisis (1997 through 2000), imports of textile and apparel products grew at an average rate of 16.1%.

Subtracting exports of U.S. cotton textile products from annual mill use provides an estimate of retail consumption of domestically produced products (Exhibit 74). Retail consumption of domestic cotton is estimated to have decreased 8.5% to 3.3 million bale equivalents. This increases the share of imported cotton consumed in the U.S. to 84.3% from 81.5% the previous year.

Textile Trade

Increasing imports over the past several years have devastated the U.S. textile and apparel industries and calendar year 2002 was no exception (Exhibit 75). Imports of cotton goods are estimated to have grown in 2002 by 11.2% to 17.4 million bale equivalents, up from 15.7 million the previous year.

When looking at imports, it is important to consider that a significant portion of imported goods contain U.S. cotton. Since much of what the U.S. exports to

the NAFTA and CBI countries is in the form of fabric and piece goods that come back in the form of finished goods, the trade gap is not as wide as it appears by just looking at gross imports and exports. NCC analysts estimate that 6.3 million bales of imports into the U.S. in 2002 contained U.S. cotton (Exhibit 76). This means that 36.2% of all imported cotton goods contained U.S. cotton. This is due, in large part, to our trading partners in NAFTA and the CBI.

U.S. Cotton Product Imports

Apparel was once again the largest category of imported cotton goods when compared to yarn, thread and fabric, and home furnishings (Exhibit 77). Cotton apparel imports are estimated at 12.6 million bale equivalents for 2002, up 9.6% from 2001. Imports of cotton home furnishings increased by 29.4% in 2002 to an estimated 1.77 million bale equivalents, up from 1.37 million the previous year. Cotton yarn, thread and fabric imports also increased in 2002 to an estimated 2.97 million bales, up 16.0% from the previous year.

Once again, countries in the NAFTA and CBI represented significant sources of imported cotton goods in 2002 (Exhibit 78). Imports from Mexico in 2002 are estimated at 2.73 million bales, down less than 1.0% from the previous year, but up 62.5% from 1997 imports (Exhibit 79). Imports of cotton goods from Canada increased slightly to an estimated 590,000 bales in 2002, up 84.4% from 1997 imports of 318,000 bales (Exhibit 80). Imported cotton goods from CBI for the year are estimated at 3.03 million bale equivalents (Exhibit 81). This is up 58.6% from 1997 imports of 1.91 million bales. These countries accounted for 36.5% of total U.S. cotton product imports in 2002. This is down from 39.3% in 2001.

Other top sources of imported cotton goods in 2002 were Pakistan, China, India, Hong Kong and Bangladesh. Imports of cotton products from Pakistan are estimated at 1.47 million bale equivalents in 2002, an increase of 249,000 bales. This is up 118.0% from 1997 imports of 676,000 bales. Pakistan also increased its share of imported cotton goods in the U.S. market last year to 8.5%. China was the source of the largest percentage increase in cotton textile imports into the U.S. in 2002 (Exhibit 82). Total cotton product imports from China increased to an estimated 1.33 million bale equivalents in 2002, up 54.7% from 2001 and 61.4% from 1997 imports of 822,000 bales. China's share of imported goods in the U.S. market increased from 5.5% in 2001 to 7.6% in 2002. Imports from India are estimated at 954,000 bale equivalents for 2002. This is a 25.4% increase from last year and a 31.4% increase from 1997 imports of 726,000 bales. India now accounts for 5.5% of all U.S. cotton product imports. Imports from Hong Kong in 2002 are estimated at 665,000 bale equivalents, up 4.6% from 1997 imports. While imports are up from 1997 figures, Hong Kong's share of imported goods in the U.S. declined to 3.8% in 2002. Imports from Bangladesh in 2002 were up 59.9% from 1997 figures to 598,000 bale equivalents. Bangladesh accounted for an estimated 3.4% of all cotton goods imported into the U.S. in 2002.

It is important to note in the following discussion that the most reliable data on imports by product category, by country

is in the form of square meter equivalents (SME), rather than pounds or bales. Since different products have different weights per square meter, total imports based on bale equivalents will not necessarily show the same trend as total imports expressed in SME. NCC expresses imports in bale equivalents whenever possible, but the measurement of SME best represents product categories imported from individual countries.

Mexico

Among individual countries, Mexico was once again the largest shipper of cotton goods to the U.S. in 2002. The largest category of imported cotton goods, by far, from Mexico remained cotton trousers. Trousers accounted for 34.0% of all cotton product imports based on square meter equivalents (Exhibit 83). Knit cotton shirts were the next largest category of imports, accounting for 18.4%, followed by combed yarn (6.8%) and cotton hosiery (6.3%).

Canada

The U.S. increased imports from Canada in 2002. The largest category of imports from Canada in 2002 was carded yarn, which accounted for 16.0% of total square meter equivalents of cotton product imports (Exhibit 84). The next largest category was underwear with 4.3% of total imports, followed by cotton hosiery at 3.8% and "other cotton manufactures" at 2.5%. The U.S. Customs Service category "other cotton manufactures" includes items such as tablecloths, napkins, dishtowels and pillow covers.

CBI

Once again, it is estimated that in calendar year 2002 CBI countries imported more cotton goods into the U.S. than did Mexico. The largest category of imported cotton goods from the region was underwear, accounting for 44.3% of total imports, based on SME (Exhibit 85). The second largest category, knit shirts, accounted for 21.8% of imports, followed by trousers (15.8%) and nightwear (4.3%).

AGOA

Over the past year, total cotton apparel product imports from the AGOA region have increased by 12.0% to reach a total of 188.1 million square meter equivalents as of November 2002 (Exhibit 86). Also during the past year, the percentage of cotton apparel imports from the AGOA region that received preferential treatment under the African Growth and Opportunity Act increased from 31.0% of total cotton apparel imports to the U.S. from the AGOA region to 70.5%.

Pakistan

Another large shipper of cotton goods to the U.S. is Pakistan. The largest category of imported goods from Pakistan in 2002 was "other cotton manufactures" (Exhibit 87). This category accounted for 32.6% of all cotton product imports based on SME. The second largest category imported from Pakistan was carded yarn with 9.5% of total imports, followed by bedspreads and quilts (7.8%) and sheeting (6.9%).

China

The source of imported cotton goods into the U.S. market showing the greatest rate of growth in 2002 was China. The largest category of imports

from China in 2002, based on SME, was "other cotton manufactures", which accounted for 38.0% of all cotton product imports from that country (Exhibit 88). This category grew by over 150% when compared to calendar year 2001. Printcloth was the second largest category of imports in 2002 from China comprising 9.0% of total cotton product imports from that country. Another 8.2% were categorized as "other cotton apparel" – which includes items such as jumpers, bodysuits, overalls and swimwear. Bedspreads/quilts were the fourth largest category and accounted for 3.5% of cotton product imports.

India

As was the case with Pakistan and China, the largest category of imported cotton goods from India in 2002 was the category of "other cotton manufactures" (Exhibit 89). When based on SME, this category represented 52.8% of all cotton goods imported from India. The next largest category was woven shirts (11.0%), knit shirts (3.6%) and cotton sheets (3.1%). India's share of the U.S. import market increased in 2002 to 5.5% from 4.9% in 2001.

Hong Kong

While still a significant source of imported cotton goods, Hong Kong's share of the U.S. import market declined in 2002 to 3.8% from 4.4% in 2001. The largest category of imported cotton goods from Hong Kong in 2002 was trousers (Exhibit 90). When looking at SME, trousers accounted for 22.4% of all cotton products imported. The second largest category was woven shirts with 14.7% of imports, followed by underwear (11.9%) and nightwear (9.6%).

Bangladesh

The largest category of cotton goods imported from Bangladesh in 2002 was underwear, which accounted for 17.1% based on SME (Exhibit 91). The second largest category in 2002 was "other cotton apparel" (14.3%). Underwear was the third largest category in 2002, representing 13.7% of total cotton goods imported from Bangladesh, followed by trousers at 11.8%.

U.S. Cotton Product Exports

After a year of decline, exports of U.S. cotton textile and apparel products experienced a slight increase in 2002 (Exhibit 92). Exports grew by 1.7% in 2002 to an estimated 4.5 million bale equivalents from 4.45 million the previous year. The increase in exports is due solely to an increase in cotton yarn, thread, and fabric (Exhibit 93). Exports of apparel and home furnishings declined for the second consecutive year. Exports of apparel are estimated to have decreased by 9.4% in 2002 to 1.8 million bale equivalents. Exports of cotton home furnishings decreased by an estimated 11.5% in 2002 to approximately 152,000 bale equivalents. Exports of cotton yarn, thread and fabric are estimated to have increased by 12.7% in 2002 to almost 2.6 million bale equivalents.

The top customers of exported U.S. cotton textiles and apparel in 2002 were once again the NAFTA and CBI countries (Exhibit 94). Exports to the NAFTA countries last year totaled an estimated 2.10 million bales, down 5.4% from the previous year. Exports to the area accounted for 46.5% of all U.S. cotton product exports. Exports to Mexico declined to an estimated 1.5 million bale equivalents from 1.6 million in 2001. Last year was the second

consecutive year that both exports to Mexico and imports from Mexico declined. Exports of cotton goods decreased by 6.7%, while imports declined by 0.5%. Exports of cotton products to Canada declined by an estimated 1.4% to 607,000 bale equivalents for 2002.

Exports to the CBI countries totaled an estimated 2.1 million bale equivalents or 45.8% of all U.S. cotton exports in 2002. This is up 16.2% from 2001 exports of 1.8 million bales, and almost 47% higher than 1999 cotton product exports to CBI.

Estimated exports to Japan in 2002 totaled 50,000 bale equivalents or 1.0% of all exports. Exports to Belgium were also 50,000 bales, followed by the U.K. with 30,000 bales. Exports to China in 2002 totaled an estimated 10,000 bale equivalents. The remaining 4.8%, or 220,000 bales, of U.S. exports were shipped to all other customers of U.S. cotton goods.

Other Textile Trade Issues

Trade liberalization is without question among the Bush Administration's highest priorities. We have already seen a number of new agreements completed and more are currently being negotiated.

New multilateral agreements are being negotiated under the auspices of the World Trade Organization. Additionally, U.S. Trade Representative Robert B. Zoellick is negotiating new bilateral and regional agreements as fast as he can. The Administration is working on agreements, or has announced plans to begin discussions, with Chile, Singapore, Morocco, Australia, and a Free Trade Area of the Americas, while continuing WTO discussions in the Doha Round. On January 8, 2003, negotiations were launched on a free trade agreement with Central America (Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua). A free trade agreement with Central America will be more complex as these nations already participate in textile trade preferences provided by the Caribbean agreement.

The Administration was given a leg up on negotiations when Congress accorded the President Trade Promotion Authority (TPA), formerly known as "fast track" authority, just before the August recess last year. Under TPA, Congress may only vote to approve or reject trade agreements presented by the President to Congress. It can not amend the agreements. Congress is also required to vote on trade agreements within a specified time under TPA. TPA was established through June 1, 2005 with the possibility of a two-year extension. TPA was reinstated as part of the Trade Act of 2002. The Act also extended and expanded the Andean Trade Promotion Act, amended the Caribbean Basin Trade Promotion Act (CBTPA) and the African Growth and Opportunity Act (AGOA), and significantly expanded Trade Adjustment Assistance (TAA) to workers, farmers and fishermen displaced by imports from countries with which the U.S. has preferential trade agreements.

On October 1, 2000 the United States-Caribbean Basin Trade Partnership Act (CBTPA) became effective. This bill granted the Caribbean Basin nations preferential access to the U.S. market.

The CBTPA allows apparel made from fabric formed in the U.S. (from U.S. yarn) and shipped to the Caribbean to be

sewn or to be cut and sewn to enter the U.S. without any quantity restrictions or duties. If the apparel is made from cut fabric exported from the U.S., the product must be sewn using U.S. origin sewing thread. Apparel made from fabric knitted in the Caribbean (from U.S. yarn) and cut and sewn in the Caribbean (regional knits) is subject to restricted entry starting at 250 million square meter equivalents with a 16% annual growth rate through fiscal year 2002. The Trade act of 2002 increased the regional knit quota for fiscal years 2003 through 2008. Beginning October 1, 2002 (fiscal year 2003), the quota for regional knits is 500 million square meter equivalents. The quota is raised to 850 million square meter equivalents beginning October 1, 2003 (fiscal year 2004). For fiscal year 2005 through fiscal year 2008, the regional knit quota will be 970 million square meter equivalents.

The CBTPA established a separate quota for outerwear T-shirts at 4.2 million dozen beginning October 1, 2000 (Fiscal year 2001). The Trade Act of 2002 establishes the t-shirt quota to be 4.872 million dozen for fiscal year 2002, 9.0 million dozen for fiscal year 2003, 10.0 million dozen for fiscal year 2004 and 12.0 million dozen for fiscal year 2005 through fiscal year 2008.

The Trade Act of 2002 included a provision stipulating that fabric formed in the U.S. must also be dyed and finished in the U.S. in order for the resultant apparel product assembled in the Caribbean region to qualify for preferential treatment.

The extension and expansion of the Andean Trade Promotion Act (ATPA) was another element of the Trade Act of 2002. The Trade Act renewed the ATPA as part of the Andean Trade Promotion & Drug Eradication Act (ATPDEA) and expanded it to include coverage for textiles and apparel. Under ATPDEA, fabric used to make apparel can be made in the U.S. or in the Andean region (Colombia, Peru, Ecuador, and Bolivia) from either U.S. or Andean yarns. Cutting to shape can occur in the Andean region, and both knits and wovens are eligible for duty-free, quota-free treatment. Unlike provisions in the CBTPA, there is no requirement under ATPDEA that only U.S. thread be used, and regional yarns (i.e. from the Andean countries) may be used in production and be eligible for benefits. The Trade Act of 2002 provides for Andean quotas to be established on the basis of specified percentages of US total apparel imports.

The African Growth and Opportunity Act (AGOA) also became effective on October 1, 2000. This act grants Sub-Saharan African nations duty and quota free access for items made in the region from fabric formed in the U.S., using U.S. yarn, and also for items made from fabric formed in the Sub-Saharan region. The region is assured access equal to 1.5% of all apparel imports into the U.S., growing to 3.5% of all apparel imports in 8 years. Under the Trade Act of 2002, certain AGOA provisions were modified. For instance, knit-to-shape articles now qualify for AGOA benefits as long as the knit-to-shape components are from the U.S. or from another Sub-Saharan African beneficiary country or they are knit-to-shape from yarn in an eligible Sub-Saharan African country. Also hybrid cutting (i.e., cutting that occurs in both AGOA countries and the

U.S.) does not render fabric ineligible for AGOA benefits. Perhaps most importantly, applicable percentages for quotas on duty-free treatment for apparel made from AGOA regional fabric were doubled, so they go from 3% of total U.S. apparel imports to 7% in eight years.

Through September 30, 2004, there is a special provision regarding sourcing of materials for African nations with a per capita GDP less than $1,500 in 1998. Under this temporary exemption, apparel assembled in these countries will be able to use fabric formed in countries other than the U.S. or the Sub-Saharan region and still be able to take advantage of the quota and duty free access.

As of January 2003, 18 African countries have been certified as having established the required customs procedures needed to be able to take advantage of the textile and apparel preferences in the Act. These countries are as follows: Botswana, Cameroon, Cape Verde, Ethiopia, Ghana, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Senegal, South Africa, Swaziland, Tanzania, Uganda, and Zambia. Of the above mentioned countries, only Mauritius and South Africa are ineligible for the special apparel provision.

Regional preference trade agreements are vital to the U.S. textile industry's ability to compete after the phase-out of quotas under the Uruguay Round Agreement. All quotas are to be eliminated during a four-stage process that is to be completed by January 1, 2005. The third stage of the phase-out occurred on January 1, 2002 when an additional 18% of quotas on apparel and textiles were eliminated. Currently, all items remaining with quota restrictions will have their quota growth rate increased by 27%. Under the Uruguay Round Agreement, it was agreed that special treatment should be accorded to the least-developed country members.

After all quotas are phased out on January 1, 2005, tariffs on textile and apparel products will still be in place. Unfortunately, textile and apparel tariff rates are not equitable around the world. According to 1998 data, if a textile or apparel manufacturer abroad wants to ship their products to the U.S., the effective tariff rate averages 8.9%. By contrast the effective tariff rates for textile and apparel products entering Argentina ranged from 40 to 50+%, Brazil ranged from 40 to 70+%, China ranged from 20 to 36+%, India ranged from 50 to 70+%, and Pakistan ranged from 40 to 60+%.

In 2001, China officially became a member of the World Trade Organization (WTO). In its WTO accession agreement, China agreed to open its market for 3.75 million bales of imported cotton. Of that total, 33% was reserved for state-owned enterprises, but the rest was to be given what is known as "national treatment". This means imported cotton must be treated the same as domestic cotton in all respects, including access to it by Chinese textile mills. As the agreement has been implemented, only 6% of the quota has been given national treatment, and even that small piece of the pie has been awarded to mills in such small individual quotas that importing has been impractical. The United States Trade Representative (USTR) agrees that this practice puts China in violation of its

accession agreement. They have asked China to change their implementation practices, but Chinese officials have refused and have announced their intention to administer the program the same way in 2003.

The textile portion of the China agreement will subject the U.S. textile industry to increased competition from imported textiles, as it calls for quotas on Chinese textile imports to be phased out within 5 years. The past year has demonstrated that China has made full use of WTO provisions to increase their textile imports to the U.S. In 2002, Chinese textile exports to the U.S. in eight categories for which quotas were removed increased by 622%. Year-to-date values for U.S. imports of knit fabric from China increased from almost 308,000 square meter equivalents as of November 2001 to 79.4 million square meter equivalents as of November 2002 (Exhibit 95).

The expectation is that what we have seen in calendar year 2002 in terms of Chinese cotton product imports into the U.S. will continue for the next several years. Areas where Chinese imports have displaced other sources of U.S. imports will continue to worsen.

The NCC has urged USTR to request consultations under WTO dispute settlement provisions, and if the consultations are not successful, to request that a dispute settlement panel be convened. The NCC is also urging Congress to insist that USTR make full use of available tools to force compliance by China and other nations before bringing new agreements to them for fast track approval.

In December 2002, U.S. Trade Representative Zoellick announced the conclusion of negotiations establishing a free trade agreement between the U.S. and Chile. Under the agreement, more than three-quarters of U.S. farm goods will enter Chile duty-free within 4 years, and all duties on U.S. products will be phased out over 12 years. Trade in textiles and apparel will be duty-free immediately if the articles meet the agreement's rule of origin, which is based on NAFTA fiber-forward rules. The agreement does, however, allow a certain annual amount of textiles and apparel containing non-U.S. or non-Chilean yarns, fibers, or fabrics to qualify for duty-free treatment. Also, the agreement would eliminate the use of export subsidies on U.S.-Chilean farm trade (unless necessary to respond if 3rd countries use export subsidies) and contains an agricultural safeguard provision designed to help protect US farmers and ranchers from sudden surges in imports from Chile.

As of November 2002, the U.S. and Singapore appeared to be near completing 2 years of negotiations on terms of a Free Trade Agreement. Negotiators apparently resolved a disagreement over a rule of origin for textile and apparel products that would qualify for preferential access to the U.S. market as well as ways to enforce labor and environmental provisions. Singapore has little significant textile producing capacity, yet exported over $302 million in textiles and apparel to the United States in 2001. Mill use in Singapore is miniscule, indicating that most, if not all, of the textiles exported from that country are shipped to Singapore from other sources, with some degree of final assembly taking place in Singapore. It is

reasonable to assume that a free trade agreement with Singapore will not increase U.S. raw cotton exports to that country, nor will it increase to any significant degree U.S. textile exports to that country.

World Market Situation

World Production

World cotton prices, as measured by Cotlook Ltd.'s "A" index, fluctuated between 38.55 cents per pound and 56.50 cents during the course of calendar year 2002. Between mid-May and early July, cotton prices gained about 10 cents per pound. Recently, we have observed another increase in prices. The price increase is, in part, due to the fact that world production dropped dramatically from year-earlier levels (Exhibit 96). USDA's latest estimates have world cotton production at 87.40 million bales for 2002, a decrease of 11 million bales from 2001. World production has not been this low since the 1999 crop year total of 87.46 million bales.

Production Climate

On January 2, 2002, the "A" index was 43.00 cents per pound. At the end of the year, the "A" had gained over 13 cents to 56.50 cents per pound (Exhibit 97). For the current marketing year, the International Cotton Advisory Committee is projecting the "A" index to average 53.00 cents per pound with an increase to 54.00 cents per pound for the 2003 crop year.

China

The People's Republic of China continues to be the world's largest cotton producer with a projected 2002 crop of 21.50 million bales (Exhibit 98). This year's crop is almost 3.00 million bales less than last season's crop mainly due to a decline in acreage. Cotton acreage declined in all major cotton producing areas. According to China's Ministry of Agriculture, several factors played a role in the decline in China's cotton acreage. First, cotton procurement prices in 2001 fell close to the cost of production. Secondly, some felt the Chinese government would take various measures in order to reduce cotton acreage to more reasonable levels. These measures included the possibility of lowering procurement prices, stalling cotton auctions and the withdrawal of a policy-based procurement fund. Third, some producers felt the world cotton price was not likely to increase much. And finally, the expected increase in cotton imports had an effect on cotton acreage.

Reductions in cotton production have been welcomed in most provinces, as most authorities seem to recognize that domestic markets could not support last year's high levels of production. The exception, however, is Xinjiang.

Xinjiang remains the only province to offer a floor price for cotton. Xinjiang has also benefited from other various government measures taken throughout the year. The primary handicap faced by producers in Xinjiang is high transportation cost due to its isolated inland location. In March, 2002, the Chinese government announced the cancellation of the railroad tax for cotton. This tax amounts to over RMB 100/MT ($12/MT). Xinjiang also benefits from sales into government reserves. Over the past two years, Xinjiang has been unable to market all of its cotton. The unsold portion has been bought by the government and placed in reserve. These reserves will eventually be sold, most likely at a loss,

effectively subsidizing Xinjiang's maintenance of a floor price for cotton. Authorities in other cotton producing regions seem to be looking beyond floor prices for additional means to support cotton producers.

With the drop in cotton production in crop year 2002, it is possible China may resume liquidating stocks. Precisely how far stocks will drop is unclear, however. Sales will, by necessity, be conducted at a loss since most of the reserve cotton was purchased at relatively high prices. For example, the 1997 cotton currently slated for sale was purchased at a time of peak prices, so losses from these sales are likely to be particularly high. While the cotton must eventually be sold, just how much of a loss the government is willing to absorb at one time remains uncertain. There are also questions concerning the quantity of stocks available for sale. The precise amount of and quality of cotton in storage is unknown, and some analysts believe that government estimates are overstated.

For China, the overwhelming concern remains price. Lower domestic price has contributed to internal prices that are several cents above the "A" Index. As a result, there have been increased cotton imports by China. Stronger domestic prices are expected to lead to increased area in 2003. Some initial estimates suggest that acreage could be up by as much as 10% from the 2002 level. Assuming normal weather and average yields, China's production would rebound to 24.0 million bales.

India

India devotes more land to growing cotton than any other country in the world, but it produces far less per acre. India's cotton yields are among the lowest in the world due to lack of irrigation, limited use of high quality seeds and poor management practices. For 2002, producers in India planted over 19 million acres of cotton. The latest estimates by USDA have India producing 11.20 million bales for the 2002 crop year (Exhibit 99) as early weather problems limited yield potential. During the past 5 years, India has produced an average of 12.13 million bales.

In India, area planted to cotton is largely influenced by price relationships with competing crops: paddy rice/fodder crops in the north, coarse grains/pulses/sugarcane in central India, and paddy rice/tobacco/chillies in the south. Despite current low prices, farmers are reasonably well satisfied by returns from cotton as either the prices of competing crops were abysmally low or there were severe marketing problems. The firming of year-end prices also supports cotton-planting intentions.

Weather and insect related problems also factor into the producers' planting decision. Bollworm has become a major problem, especially in the northern states and parts of Gujarat and Andhra Pradesh. Most of the high-yielding, irrigated cotton is produced in these states, and losses from bollworm have significantly affected yields. Having seen the outstanding results produced by Bt cotton, Indian farmers are excited about this new technology. However, only a limited amount was planted in 2002. Farmers in the north, where the pest problem has been especially severe, did not have access to an approved Bt variety in 2002, though the government is expected to approve a northern variety

for 2003. Wide spread adoption of Bt cotton in India will hinge upon its cost and performances in the first few seasons, and upon the ability of the government and seed industry to ensure that bogus seed sales do not undermine farmer confidence in the new technology. The Indian government is trying to educate their producers about Bt cotton and other new technologies in a variety of ways. There are various government agency and research institution sponsored schemes for development, production and distribution of seeds, crop surveillance, integrated pest management and extension services. The Cotton Technology Mission coordinates and supports activities to improve cotton yields, reduce cultivation cost and improve quality through the upgrading and modernization of existing facilities.

Since cotton continues to be competitive with alternative crops and the Indian weaving industry continues to rely on domestic production, India's cotton acreage should increase slightly in 2003. Therefore, the Indian crop size will once again be determined primarily by weather and insects. Assuming no significant problems during the growing season, India's production should approach the 5-year average of 12.1 million bales.

Uzbekistan

Cotton continues to be the major crop in Uzbekistan and a major economic factor in terms of employment and foreign exchange. Cotton is grown in a crescent from the Fergana Valley, extending south along the Tien Shan Mountains to Samarkand and Bukhara, and then west along the Amu Darya River. Production in 2002 is projected to be an estimated 4.70 million bales (Exhibit 100).

Uzbekistan has not been able to reach its cotton production target for the past several years for a number of reasons, including weather problems, inadequate production incentives, inadequate and low quality inputs (especially seeds) and a deteriorating infrastructure, especially in terms of irrigation. In order to alleviate some of these problems, the Uzbek government plans to initiate a major program to reform the cotton sector. According to the Uzbek Cotton Ginning Association, the aim of the reforms is focused on three areas. First, the government plans to replace inferior cotton varieties, particularly those with a high micronaire, with better quality varieties. Currently, only about 20 percent of cotton area is considered to consist of higher quality varieties. Second, the government seeks to modernize Uzbekistan's 145 ginning plants by attracting foreign investment. Presently, more than 80 percent of the nation's ginning equipment dates back to the Soviet era and needs to be replaced with better quality equipment. Finally, the government looks to develop a system of accurate and timely market information so farmers can better react to market conditions and can better service buyer's specific cotton needs. Officials indicate the government's plan is to attract foreign investment and technology to improve seed production and marketing.

Despite the appearance of reform, the state continues to play a major role in cotton production and marketing. The state determines area, sets production targets and prices, supplies inputs, and procures and markets the bulk of the

crop. Most of the agricultural budget reportedly is spent on irrigation. The government launched a system to charge for irrigation in 1997, but in reality it does not work well and the system continues to deteriorate.

To dismiss Uzbekistan as a declining presence among major producers is premature. With continued support of the government and better weather, production in 2003 should increase to roughly 4.80 million bales.

Pakistan

Cotton is the backbone of Pakistan's economy and the government continues to rely heavily on cotton production as a major source of employment and foreign exchange. USDA currently projects Pakistan production at 8.00 million bales for 2002, down 300,000 bales from the 2001 crop year estimate (Exhibit 101).

The 2002 crop had problems from the beginning. Weak monsoons and reduced snow fall during 2001 resulted in an unprecedented water shortage. Therefore, a large portion of the crop was planted late due to the delayed availability of water. Also, there was less cotton planted in 2002. Planted area was decreased by an estimated 15 percent. In the Punjab province farmers switched area from cotton to sugarcane and rice because of lower returns on cotton compared to rice and sugarcane last year. Yields are expected to be marginally better in Punjab (which accounts for 76 percent of production) but to decline at least 5 percent in Sindh primarily due to disease and pest emergence at the end of September and early October. Other items contributing to a lower 2002 crop include: farmers reduced vigilance to the crop late in the season due to lower pest infestation in the first half of the crop cycle, farmers involvement in government elections until October (a very critical period in the harvest cycle), and rain in the last half of September which led to heavier pest infestation in many areas of Punjab and Sindh. Also, bollworms reemerged in the last week of September in Punjab.

Since cotton production remains so vital to Pakistan's economy, the government has enacted a number of reforms to enhance the producer's returns. Since farmers generally sell seed cotton, as opposed to lint, the government implemented a new grading system for seed cotton so that seed cotton grades and prices will correspond more closely to lint grades and prices. The system also pays a premium for contamination free cotton. To counter the perception that spinners reap a windfall at the expense of producers, the government announced that it would continue the policy of unrestricted cotton exports for the entire season. In the past, the government restricted exports at the beginning of the season, at least until the size of the crop was known.

With the continued support of the government and fewer insect related problems, production in 2002 should increase.

Turkey

Cotton production in Turkey remains strong as domestic mill use has surpassed production for the past five seasons. Between crop year 1997 and 2001, Turkey has produced an average of 3.74 million bales. During that same time, domestic mill use in Turkey has averaged 5.30 million bales. For 2002, USDA projects production at 4.10

million bales and domestic mill use at 6.40 million bales (Exhibit 102). If growers are able to reach that production level, it will be their largest crop since 1995.

The majority of Turkey's cotton is grown in three main regions: the Aegean region, Cukurova, and Southeastern Anatolia. Smaller amounts of cotton are also grown in Antalya and Antakya. Aegean cotton generally is considered to be the best quality and is preferred by the local textile industry. Aegean cotton is longer than cotton from Cukurova and other regions. While cotton production is increasing in Southeast Anatolia as a result of the Southeastern Anatolian Project (GAP), it is decreasing in the Cukurova region due to environmental problems created by excessive use of chemicals over past years and competition from other crops, mostly corn. The GAP project consists of a series of hydroelectric and irrigation dams. When completed, over 4.20 million acres of land will be irrigated. Currently, about 346,000 acres on the Harran Plain are irrigated by the Ataturk dam, of which 90 percent is planted in cotton.

Most observers think cotton production will fluctuate for the next few years between 3.7 million bales and 4.3 million bales depending on market and weather conditions. Acreage expansion in southeastern Turkey just compensates for declining area in traditional cotton growing areas, particularly in Cukurova and to a lesser degree in the Aegean region. For the 2003 crop year, Turkey should see a slight increase in production to roughly 4.20 million bales.

Australia

Australia's crop was 3.20 million bales in 2001. Production in 2002 is estimated at 1.50 million bales (Exhibit 103). Low prices, dry conditions and a poor outlook for irrigation water availability all combined to reduce cotton production.

Currently, many of Australia's cotton growing regions are facing severe drought conditions. However assuming a return to average weather conditions and average irrigation water allocations, the forecast is for Australian cotton production to bounce back to roughly 2.40 million bales in 2003. Longer term, production could expand to 3.60 million bales by the 2006 crop year if we see an improvement in world cotton prices and normal water availability.

Environmental issues have grown in importance in recent times. Governments at all levels have tightened regulations in an effort to protect the environment. This has affected many aspects of cotton production including chemical application, genetic modification and water usage. Water usage is described by industry sources as the most fundamental constraint to the area of cotton planted each year. Recent regulatory changes have attempted to limit the amount of water used for irrigation in order to improve river flows for environmental reasons.

Future expansion of cotton production on a large scale will be limited to valleys that have not yet reached their full development potential, such as the Lachlan/Murrumbidgee valley where cotton production is a relatively new enterprise and the Ord River in western Australia. The Ord River irrigation scheme in western Australia currently

comprises over 28,400 acres of farmable land with cotton grown on an experimental basis. The introduction of genetically modified cotton combined with plans to increase the existing irrigated area by 106,000 acres raised hopes that cotton may be grown on a commercial scale. However, due to the breakdown of commercial arrangements required to expand the scheme and low cotton prices, few anticipate significant increases in cotton production from this region in the near future.

Brazil

USDA estimates that production for the 2002 marketing year will rise to 3.60 million bales (Exhibit 104). This is 80,000 bales higher than the 2001 crop year estimate. In 2003, production should continue this upward trend climbing to over 4.0 million bales.

During 2002, the Brazilian Cotton Growers Association formally requested the Brazilian Government to impose a 115 percent compensatory tariff and a $1.28/kilogram fee on U.S. cotton imports to compensate for perceived price distortions resulting from U.S. farm program production supports and to end reported dumping of U.S. cotton on the Brazilian market. Brazil also filed a complaint in September with the World Trade Organization (WTO) requesting consultations with the United States, contending that the U.S. cotton program violates the WTO trade agreement because it has caused injury to the Brazilian cotton industry. Brazil has also challenged the cotton competitiveness program and the GSM credit guarantee program, alleging they are illegal export subsidies. Brazil and the U.S. agreed to meet to discuss Brazil's complaint against the U.S. cotton program. Representatives of the U.S. Trade Representative's office have met with Brazilian officials in Geneva to review the complaint. Since Brazil is in the process of forming a new government following the election of Luiz Inacio Lula de Silva as president on October 27, 2002, the timetable for resolving the dispute is unclear.

West Africa

This old French colonial region continues to play a significant role in the world cotton market. The cotton producing countries of West Africa have gone from producing less than a million bales in the early 1980's to producing between 3.00 and 4.00 million bales over the last few crop years. The latest estimates have West Africa producing 3.87 million bales in 2002 (Exhibit 105). The larger crop forecast is based largely on expansion in crop area. West Africa now produces enough cotton to measurably affect the cotton export market, since virtually all of its production is sold abroad.

The competitive price of cotton in relation to competing crops remains a driving force in expanding cotton acreage. If cotton maintains its price advantage over competing crops in West African countries, area devoted to cotton production will likely remain unchanged in 2003.

Production Outlook

The higher world prices in 2002 are expected to lead to increased cotton area in the 2003 crop year. In addition, the assumption of normal growing conditions and average yields will contribute to production increases in certain countries. China, Australia, and India should see the largest recovery.

The net effect for 2003 production will be an increase of over 6.50 million bales above the 2002 level, putting world production at an estimated 94.00 million bales (Exhibit 106).

World Consumption

Man-made fiber use is challenging cotton in every market. World retail consumption of cotton is estimated at 93.1 million bales and polyester use is estimated to be 94.77 million bales in 2002 (Exhibit 107). All man-made fiber use has soared to 152.99 million bale equivalents in 2002. Cotton use continues to rebound from the decline in 1998. However, polyester use increased steadily through the market turmoil of 1998 and rose above that of cotton during the past year.

Consumption Climate

World cotton consumption increased by 2.36 million bales to 94.57 million bales in 2001 and USDA has projected world consumption to rise even further in 2002 to an estimated 96.45 million bales (Exhibit 108). It should be noted that USDA's estimates are more optimistic than those released by other industry research groups.

The increase in world consumption can be attributed to an overall improvement in the worldwide economy and world prices that are still below historical averages. In the United States, there was impressive growth during the first quarter of 2002. However, growth in the second quarter was much more modest, coming in at 1.3 percent. While much better than what was observed at this time last year, the slower growth relative to the first quarter reflects deceleration in inventory investment and personal consumer expenditures. According to preliminary estimates released by the Bureau of Economic Analysis, real GDP increased at an annual rate of 4.00 percent in the third quarter of 2002.

Outside the United States, economic growth prospects are improved from 2001, but still below the levels observed in 2000. The IMF now estimates global economic growth of 2.8 percent in 2002, up from 2.2 percent in 2001. The major advanced economies are expected to grow by 1.4 percent. Growth in the developing economies is expected to reach 4.2 percent in 2002, up from 3.9 percent in 2001. Economies in transition (Eastern Europe and the Former Soviet Union) are projected to see growth of 3.9 percent.

China

According to the China National Cotton Textile Industry Association, total cotton consumption by the textile industry was forecast to reach 23.42 million bales in 2002, while the China National Cotton Exchange estimates consumption at slightly over 22.50 million bales. These estimates, which were made during mid-2002, differ greatly from the latest USDA projections. Domestic consumption outside the organized textile associations and exchanges help account for the large discrepancies between the above estimates and those of USDA's. For crop year 2002, USDA projects domestic mill use for China to be 27.00 million bales (Exhibit 109). Regardless which estimate you use, the current situation for the textile and spinning industry represents a reversal of fortune over last year. At that time, high prices for domestic cotton relative to imports placed the textile industry in a difficult position relative to overseas competitors. Part of this difficulty was

passed on to spinners as many textile mills sought to evade cotton quotas by importing cheap yarn from India and Pakistan. This caused a substantial accumulation of yarn manufactured from relatively expensive domestic cotton. However, the large 2001 crop put an end to that, causing cotton prices to fall sharply. Industry sources report that most of the surplus yarn stocks have been used. If domestic prices go too high, the textile industry could once again find itself in a very difficult position.

Chinese cotton consumption has been on the rise since the 1998 crop year and continues to increase. China consumption could rise above 27.50 million bales in 2003.

India

Cotton's share of total fiber use during the last three years has been 58 to 59 percent. Given current price relationships between cotton and other fibers, that share may increase to 62 percent by the end of the 2002 crop year. India's mill consumption increased in 2002 to 13.60 million bales (Exhibit 110). This is up 320,000 bales from the 2001 estimate.

To keep pace with increasing demand for clothing from a growing domestic population, the textile industry must expand production by 3-4 percent per year. India's textile industry includes both the organized sector (large-scale spinning units and composite mills) and the unorganized sector (small-scale spinning units, power looms, handlooms, and hosiery units). India's mill consumption is expected to be unchanged in 2003, although increasing competition from man-made fibers could temper cotton use.

Pakistan

Little growth was seen in Pakistan's consumption numbers between the 1991 and 1998 crop years. During those crop years, Pakistan had averaged 6.9 million bales of consumption. However, cotton consumption increased sharply in 1999 in response to aggressive export pricing of cotton yarn (Exhibit 111). Consumption continues to climb in 2002. The latest USDA estimates have Pakistan consumption at 8.80 million bales, up 300,000 bales from 2001. The increase in consumption continues to be driven by export-oriented production. The spinning and weaving industries continue to invest in new equipment as well as to renovate existing equipment due to the combination of low domestic lint prices and stronger export demand. Industry sources generally report that the textile industry is seeking to improve quality as well as to diversify production to include more value-added products, rather than to rely mainly on lower-value yarn exports. With continued investment in the spinning and weaving industries, Pakistani mill consumption will likely remain near current levels or increase slightly in 2003.

Turkey

Much of the growth in Turkish mill use has been to supply a textile export business that expanded rapidly throughout the 1990's. In 2001, Turkish mill use rose to 6.15 million bales (Exhibit 112). For 2002, mill use is expected to continue to rise to 6.40 million bales.

The textile industry is one of the most important and dynamic sectors in the

Turkish economy, accounting for 7 percent of GNP, 28 percent of industrial employment and 38 percent of total exports. The industry estimates that 40 percent of total textile production and 70 percent of ready-made garment production are exported. The European Union remains Turkey's largest market, with Germany being the leading importer within the European Union. Textile exports to the Former Soviet Union, mainly on a cash basis through a combination of small scale "suitcase trade" and regular border trade, have stagnated due to economic problems in Russia. However, the United States is becoming an increasingly important market, reportedly accounting for 8 percent of total exports. Exporters point to an increase in U.S. textile import quotas, as well as Turkey's increasing focus on quality, as two reasons for the increase. If Turkey can maintain a strong presence in the export market, mill use should remain at or slightly above the current level of 6.40 million bales.

Brazil

The latest USDA estimate for Brazilian mill use is 4.00 million bales, up 50,000 bales from crop year 2001 (Exhibit 113). Uncertainties in regards to trade issues between Brazil and the United States could lower mill use slightly in 2003. In November, Brazil issued instructions regarding pest risk assessments (PRA) that could have an impact on cotton imports into that country, including imports from the United States. Effective November 27, 2002, cotton and other agricultural products would need to comply with Brazil's new PRA rules. However, the rules were not well defined and some of them may violate the Sanitary Phyto Sanitary (SPS) rules in the WTO. Uncertainty over this decision by Brazilian officials is causing concern among exporters to Brazil.

If trade issues such as these continue to go unresolved throughout the marketing year, Brazilian consumption could fall below 4.00 million bales for the 2003 crop year.

Mexico

Mexico's mill use is sustained by the North American Free Trade Agreement. The textile industry continues to purchase the majority of their cotton needs from the United States. For 2002, Mexico is projected to consume 2.05 million bales of cotton (Exhibit 114). This is a decrease of 50,000 bales from 2001. However, as the U.S. economy strengthens, mill consumption in Mexico should improve slightly in 2003.

Indonesia

Mill use remained steady in 2002 at 2.30 million bales (Exhibit 115). The domestic textile market has exhibited signs of recovery. However, rampant smuggling and under invoicing of imported textiles and garments continue. Continued low purchasing power causes consumers to make food purchases a priority relative to expenditures on fabrics and clothes. Therefore, growth in demand for domestically produced textiles is expected to remain sluggish, and the health of the sector will continue to hinge on demand conditions in overseas markets.

With increases in world oil and electricity prices boosting polyester prices, and in the face of low cotton prices, some mills have begun to substitute cotton for synthetics in textiles targeted for the export market. Synthetic fiber (for viscose rayon and polyester

staple) and yarn (polyester and nylon filament) production declined about 2 percent during calendar year 2002. If this trend continues, Indonesia could see a slight increase in cotton mill consumption in 2003.

Consumption Outlook

Low world cotton prices and modestly improving economic conditions should continue to stimulate increases in world consumption. Assuming global consumption of 96.45 million bales for the 2002 marketing year, further growth in 2003 would push world mill use up to 97.00 million bales (Exhibit 116).

World Trade

In 2002, world trade in raw cotton remained stable at an estimated 31% of expected world mill use (Exhibit 117). This is up slightly from the 5-year average of 30%. Major raw cotton exporters continue to struggle with stiff competition.

Trade Climate

USDA estimates that 2002 crop year raw cotton exports will reach 29.57 million bales (Exhibit 118). That is an increase of roughly 580,000 bales over the previous crop year. While concerns continue to be expressed about the availability of higher quality cotton, it appears that the sheer volume of cotton available in the international market continues to overcome quality concerns.

United States

As evidenced by recent strong export sales, U.S. cotton is meeting the price competition and will maintain market share, despite extremely competitive conditions in the world market. USDA estimates U.S. exports of raw cotton to reach 10.80 million bales for the 2002 marketing year (Exhibit 119).

The reliance of the U.S. cotton market on exports has increased dramatically over the past two years. We have seen a complete reversal in the contributions of exports and domestic mill use to total off-take. For the 2001 marketing year, exports contributed about 60 percent of total use. For the 2002 crop, USDA is estimating exports to be 10.80 million bales. Expectations of increased imports by China and India are contributing to the high export levels. Despite extremely competitive conditions in the world market, the United States cotton industry has the tools at its disposal to maintain its competitive position.

In the past 10 years the top destinations of U.S. raw cotton exports have shifted (Exhibit 120). In 1990, the top three destinations for U.S. raw cotton were Japan, China, and South Korea. Those countries continued in the top three for the majority of the past decade. However, for the 2002 marketing year only China remains in the top three destinations of U.S. raw cotton exports.

Uzbekistan

Uzbekistan's cotton exports have dropped considerably over the past several years due to declines in production (Exhibit 121). The export forecast for 2002 is 3.55 million bales. The government of Uzbekistan still controls the export of both state-order cotton and over-quota free cotton through the trade agencies of the Ministry of Foreign Economic Relations (MFER), which coordinates sales, prices and shipments.

Most cotton is sold to international shippers through negotiated sales. However, recently, MFER has launched several small auctions with limited success. The government also continues to trade some cotton on a government-to-government basis, mainly to Russia.

The government still is in the process of changing its cotton grading system to approximate the U.S. system in order to eliminate a major source of contract disputes. Several years ago, the government established the National Cotton Certification Center (SIFAT), as part of a World Bank project. SIFAT has purchased 16 HVI labs, and is installing these labs in each cotton-producing region.

The government also is interested in working with international cotton traders and other entities to invest in the cotton sector, including production, ginning, warehousing and transport. Officials believe greater cooperation and partnerships in the industry will enhance Uzbekistan's ability to produce and market its cotton. However, analysts believe that the government will need to undertake some very basic legal and economic reforms, including currency convertibility, transparency and sanctity of contracts, as a prerequisite to significant investments. Currently, there are three foreign investors in the cotton industry, one American and two French companies. The American company, the Central Asian American Seed Company, invested more than $10 million in cotton seed production. They are working in cooperation with several cotton farms in the Syrdarya region by providing production credit and ginning the output in its own gin.

Even with continued support from the government, it is highly unlikely that exports will change much, if any, in 2003.

China

Since 1998, China has been a net exporter of cotton in an attempt to reduce burdensome stock levels (Exhibit 122). However, their trade position changed in 2001. China remained a net importer in 2002 due to reduced production and continued growth in consumption.

There is still much concern over China and their compliance with various WTO regulations. In the summer of 2002, China notified the WTO of an impending change in the testing protocol for raw cotton. The notification referenced a little-known quality test method for neps and short fibers to become effective in April 2003. The United States Department of Agriculture was provided with information concerning the impracticality and unreliability of the test procedures referenced in the Chinese submission. Also included was a detailed explanation of how acceptable and reliable test methods are developed and implemented, a process these Chinese testing methods have not been through. In November 2002, the United States Trade Representative formally delivered the U.S. response regarding the Chinese testing protocol to the World Trade Organization. The response explains the U.S. cotton industry's position and expresses their concern that these tests are an attempt to "arbitrarily and unjustly limit imports of cotton into the Chinese market." Chinese cotton authorities have not responded to the U.S. Trade Representative's formal response.

USDA's estimate of Chinese imports for 2002 is 2.25 million bales. Even with all the questions concerning China and their testing methods, most analyst agree Chinese imports will continue to rise to roughly 2.50 million bales for the 2003 crop year. However, it should be noted that these imports would be based on need as it is expected that domestic production will fall short of their domestic consumption. Should China experience an above-average crop and reduce their immediate need for imports, it is quite likely that their newly adopted quality tests will be used to restrict imports.

Australia

Australia's commitment to export cotton is formidable. More than 90 percent of Australia's cotton crop is exported each year. The remainder is processed by Australia's five spinners (Exhibit 123). Asian countries including Indonesia, Japan, China, Thailand, South Korea, Taiwan, Bangladesh, the Philippines, Malaysia and Hong Kong dominate Australian raw cotton export destinations. Exports actually dropped off from the 2001 marketing year due to the short crop in 2002. The latest estimates by the USDA have Australia exporting 2.70 million bales of cotton, down 350,000 bales from 2001. If production increases in 2003, there should be a rebound in Australian exports.

West Africa

West Africa has increased cotton production in recent years in the hopes of building its export business. USDA estimates that the region's exports will be 3.89 million bales in 2002 (Exhibit 124). Cotton exports from this region will likely remain at that level in 2003 provided weather does not adversely affect the region's production.

India

India's cotton exports have fluctuated dramatically in size the past 15 years and have declined substantially since 1996 (Exhibit 125). For the past three years, India has been a net importer of raw cotton. Comparatively weak world prices and a shortage of domestic ELS and quality cotton encouraged mills to import an estimated 1.75 million bales of cotton in crop year 2001.

The latest estimate for 2002 Indian imports is 1.80 million bales, up 50,000 bales from the 2001 crop year. India has become a growing import market for ELS and high quality long staple cotton, with occasional imports of medium staple in years of tight local supplies or when world prices are favorable. Most mills using ELS are familiar with U.S. Pima and its fiber characteristics. Many mill owners who have imported U.S. upland cotton in recent years have also expressed appreciation for its quality and higher spinning out-turn compared to local cottons. However, prices of U.S. cotton, higher freight costs and longer delivery periods are important considerations for Indian buyers, who can source cotton from closer markets such as Egypt, West Africa, CIS countries and Australia.

Pakistan

Pakistan is forecast to be a net cotton importer during 2002 (Exhibit 126). The latest USDA estimate for Pakistani imports is 600,000 bales, a decrease of 400,000 bales from the previous year.

In a few short years, Pakistan has emerged as a major importer of ELS

cotton, particularly U.S. Pima. The government will continue its free trade policy for cotton exports, which means it will not set export quotas nor restrict exports to certain times of the marketing year, as it has done in the past.

Trade Outlook

An increase in world cotton trade continues to depend on the potential for increasing world demand for cotton textile products. We are continuing to see a transfer of textile trade from developed countries to developing countries. Due to an increase in world consumption, world trade is expected to increase slightly in 2003. Assuming a net import trade position for China, world cotton trade could increase to roughly 30.0 million bales (Exhibit 127). Once again, China will be the key in 2003-2004.

U.S. raw cotton exports should remain in the range of 10.70 to 11.00 million bales for a market share over 35% (Exhibit 128).

World Stocks

Due to the significantly smaller crop in 2002, world stocks on July 31, 2003 are expected to total 37.92 million bales (Exhibit 129). This will be 8.71 million bales lower than year-earlier levels. If realized, stocks will be at their lowest level since then end of the 1995 marketing year.

Cotton stocks in the U.S. are projected to fall to 6.30 million bales by the end of the current marketing year. While this is significantly lower than the 2001 crop levels, it is still relatively high compared to the 3.5 million bales averaged during the 1990's.

For the 2003 crop, normal weather and average yields should again produce a world crop that will be smaller than expected consumption. Under this scenario, world stocks could fall by another 3 million bales by July 2004. Again, this outcome largely depends on weather as favorable conditions would likely lead to an increase in stocks.

Conclusion

During the second half of 2002, we finally saw some recovery in U.S. and world cotton prices. Though not a spectacular rally, it was significant given the steady decline that had been experienced between 1995 and 2001. The higher prices resulted from the combination of lower world production and higher world consumption. The decline in production stemmed from a combination of reduced area and yield loss in certain countries.

For the 2002 crop year, U.S. production is pegged at 17.14 million bales (Exhibit 130). Reduced acreage, particularly in the Mid-South and the West, contributed to a crop that was 3.16 million bales below 2001. In addition to lower acreage, portions of the Cotton Belt faced adverse weather conditions. The Southeast was the hardest hit with severe drought conditions during the growing season. To compound problems, extremely wet weather during the harvest further cut yields, as growers were not able to get into the fields. The growers in the Mid-South also faced similar problems with excess moisture, while portions of Texas saw their yields cut due to dry weather. Despite lower production, the market still had adequate supplies due to higher beginning stocks.

U.S. mill use for the 2002 crop year is estimated at 7.50 million bales, 200,000 bales below the 2001 level. With exports projected at 10.80 million bales, this represents more than 60% of total off-take. If sales do not remain strong during the remainder of the marketing year, this estimate could prove to be optimistic.

For 2003, NCC economists are projecting cotton acreage at 14.05 million acres, less than 1 percent above the 2002 level. Assuming normal abandonment and yields, projected production is 17.10 million bales. Adding in beginning stocks and imports, total supplies for the 2003 crop year would be 23.43 million bales. This represents a decline of 1.17 million bales from 2002.

With the continued increase in competition from imported cotton textiles, further declines are expected for the domestic textile industry. NCC economists expect mill use to fall to 7.30 million bales for the 2003/04 marketing year. As a result, exports will continue to be relied upon as the primary outlet for the U.S. crop. The export projection of 10.70 million bales hinges on a foreign crop that falls short of foreign consumption, as well as continued imports by China.

The world situation, as estimated by USDA for 2002/03, is faced with a significantly smaller crop of 87.40 million bales (Exhibit 131). USDA estimates record mill use of 96.45 million bales, with China accounting for more than half of the increase from 2001. Over the course of the current marketing year, world stocks are expected to fall by almost 9 million bales.

For 2003, increased acreage and the assumption of average yields push world production up to 94.00 million bales. Australia, China and India are expected to account for the bulk of the recovery.

The projected 2003 crop falls short of expected consumption, which is estimated at 97.10 million bales. The shift in mill use from developed to developing economies will continue in 2003. Increased use in China and a few other developing economies will more than offset declines in the U.S., the European Union and Japan.

The current estimates for production and consumption would lead to a further reduction in global stocks by July 31, 2004. With a projected global stocks/use ratio of 36.1%, it would be the tightest balance sheet since 1994 and would continue to be supportive of prices. Historically, stock/use relationships at this level have produced an "A" Index that is substantially above current market levels. In the current environment, is there enough strength in cotton demand to support higher prices, or will we simply see cotton lose ground to man-made fibers?

While the cotton market has improved over the past twelve months, there are a number of issues and challenges that continue to confront the cotton industry. The shrinkage of the domestic textile industry has slowed but not stopped. Relaxed quotas, a strong dollar and subsidized foreign textile industries have led to a tremendous surge in textile imports, both of cotton and man-made fibers. Unless corrective measures are taken, further declines are likely. We must remember that we are 23 months away from the complete elimination of our textile quotas. At that point, the only protection against surging imports will be tariffs, which are already much lower than those imposed by countries such as Argentina, Brazil, China, India and Pakistan.

While U.S. mill use has fallen, world use has shown solid gains over the past two years. Low world prices have fueled the growth, as cotton has been more competitive with man-made fibers. However, barring above average yields, price levels that prevailed in 2001 and early 2002 are not sufficient to support world production at a level equal to recent demand. As a result, prices have since shown recovery and are expected to lead to additional acreage in 2003. A key question will be the extent to which the stronger prices will dampen global demand.

The decline in domestic mill use has transformed the U.S. cotton industry into an export-oriented sector, where success depends on competitiveness and access. Competitiveness entails both price and quality. The U.S. industry must produce fiber that has the characteristics demanded by international buyers. In addition, U.S. fiber must be delivered at a price that is competitive with foreign growths. The marketing loan and Step 2 payments will continue to be essential tools for the U.S. industry. NCC continues to push for increased access into international markets. This is particularly true with regards to China. Their implementation of import quotas continues to be in violation of commitments made as part of their WTO accession agreement.

In May 2002, the President signed the new farm bill covering the 2002-07 crops. Since that time, the legislation has come under a barrage of criticism from sources within the U.S. as well as foreign countries. In fact, Brazil has filed a formal complaint with the WTO that challenges several programs included in both this bill and the previous farm bill.

Maintaining the legislation as passed remains a priority of NCC given its vital importance to the well being of U.S. cotton production.

The issues mentioned here are merely examples of the challenges facing the U.S. cotton. NCC economists will continue to provide accurate and in-depth economic analysis in an effort to help the industry meet these challenges.

Exhibit 1

Change in U.S. Real GDP

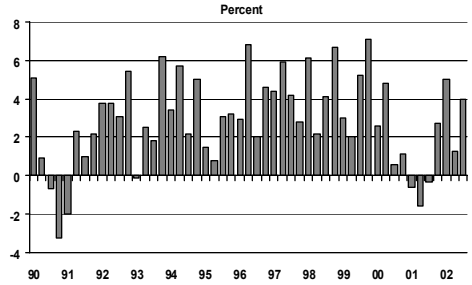

Exhibit 2

Change in U.S. Real Personal Consumption Expenditures

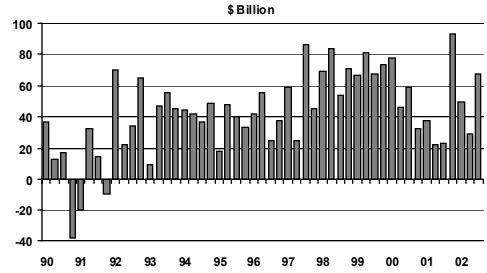

Exhibit 3

Change in U.S. Real Private Investment

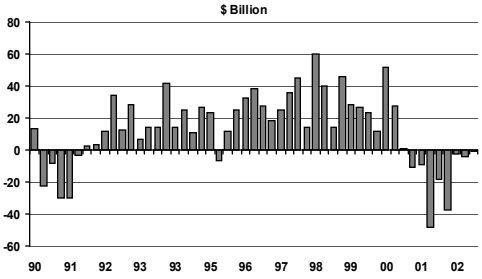

Exhibit 4

Civilian Employment

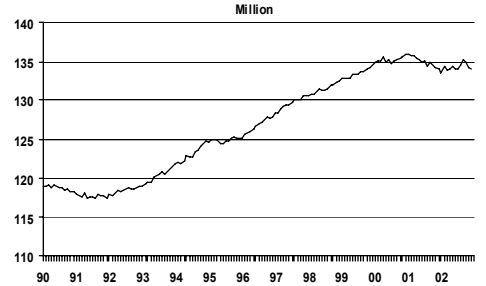

Exhibit 5

Civilian Unemployment Rate

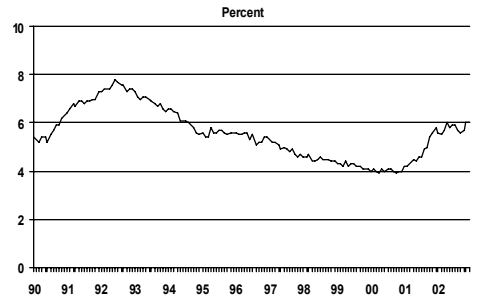

Exhibit 6

Federal Funds Rate

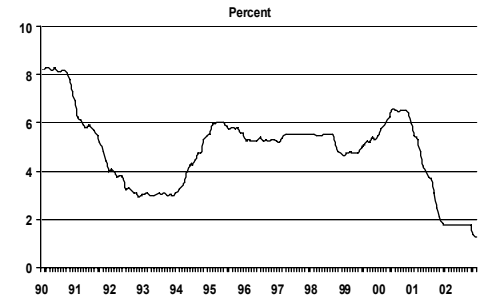

Exhibit 7

30-Year Mortgage Rate

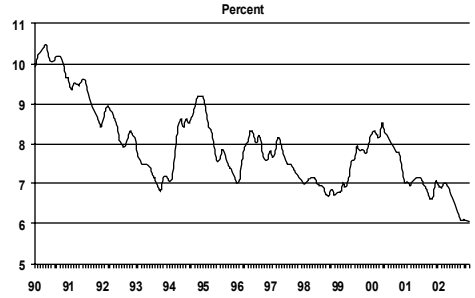

Exhibit 8

Projected US Federal Budget

CBO (August '02)

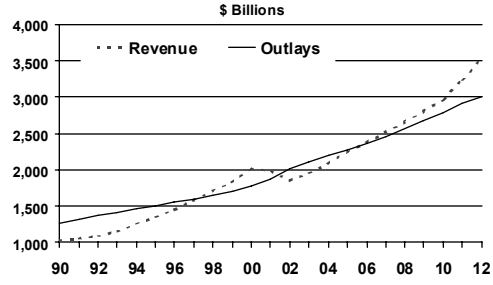

Exhibit 9

US Federal Budget Surplus

CBO (August '02)

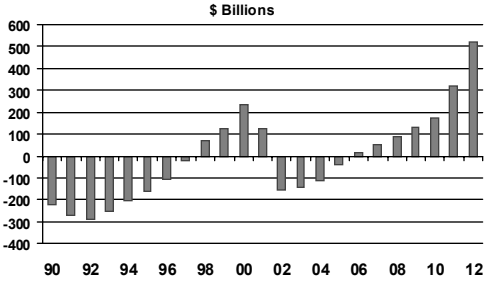

Exhibit 10

Inflation Measures

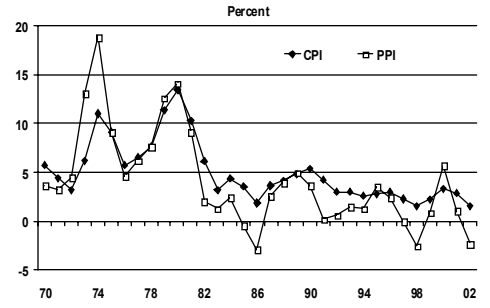

Exhibit 11

U.S. Crude Oil Spot Price

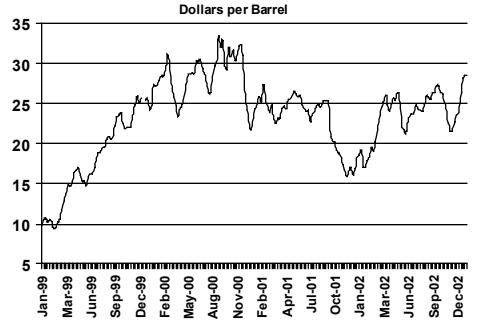

Exhibit 12

U.S. On-Highway Diesel Price

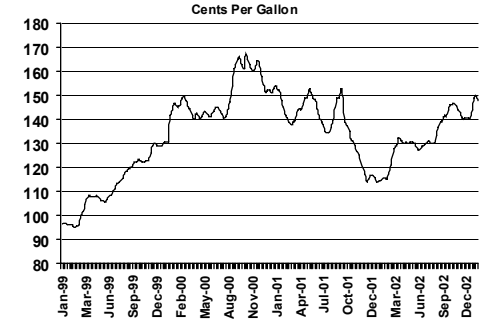

Exhibit 13

U.S. Natural Gas Wellhead Price

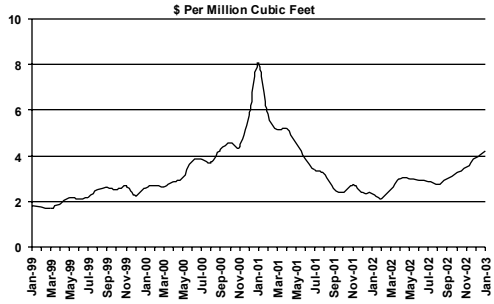

Exhibit 14

Dow Jones Industrials

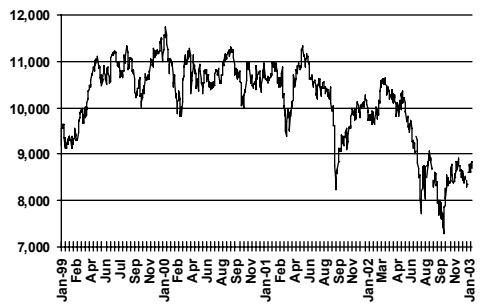

Exhibit 15

NASDAQ

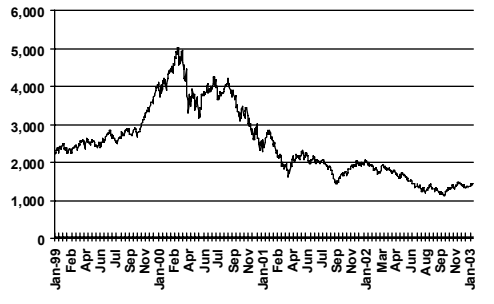

Exhibit 16

World Real GDP Growth

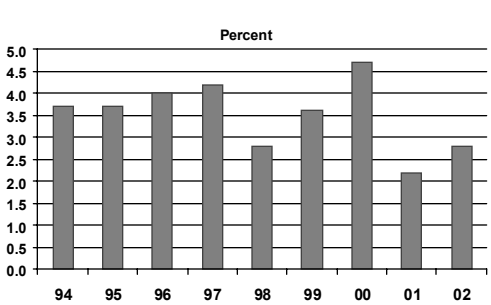

Exhibit 17

Asian Stock Indexes

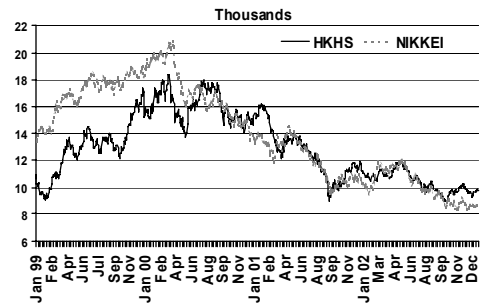

Exhibit 18

Euro

(Currency per U.S. Dollar)

Exhibit 19

Japanese Yen

(Currency per U.S. Dollar)

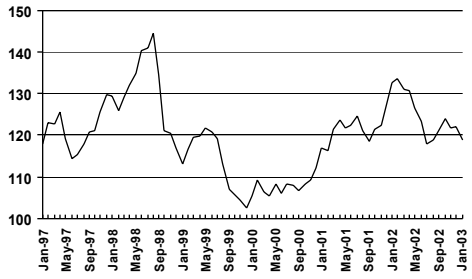

Exhibit 20

South Korean Won

(Currency per U.S. Dollar)

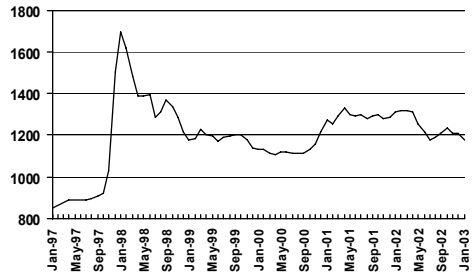

Exhibit 21

Indian Rupee

(Currency per U.S. Dollar)

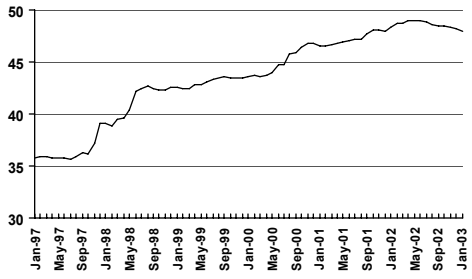

Exhibit 22

Indonesian Rupiah

(Currency per U.S. Dollar)

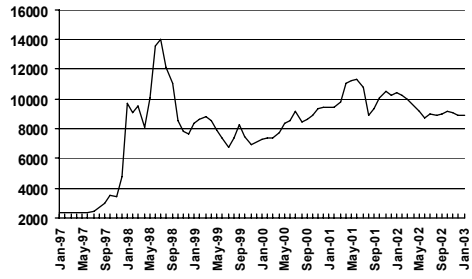

Exhibit 23

Pakistani Rupee

(Currency per U.S. Dollar)

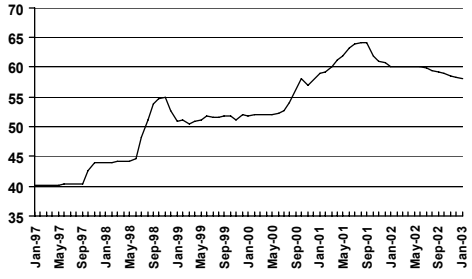

Exhibit 24

Real Exchange Rate Index

(Other Important Trade Partners, Source - Federal Reserve)

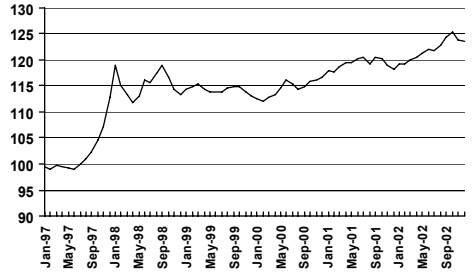

Exhibit 25

Reuters/CRB Futures Index

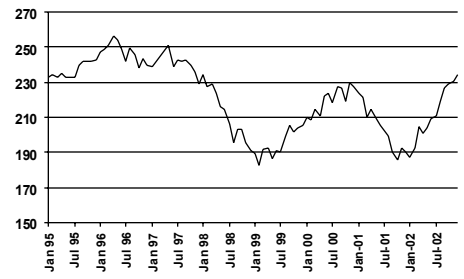

Exhibit 26

Ag Prices Received Index

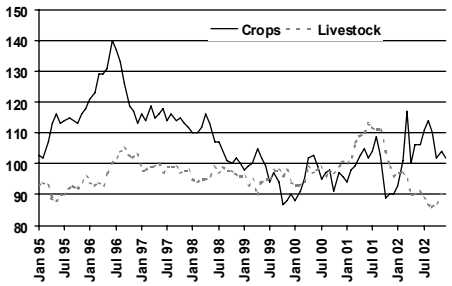

Exhibit 27

U.S. Net Farm Income

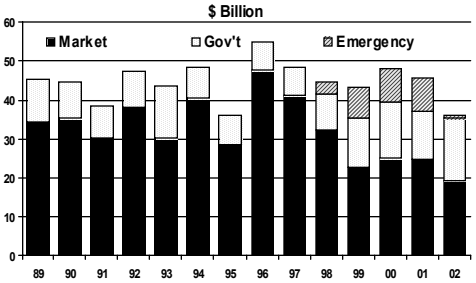

Exhibit 28

U.S. Upland Planted Area

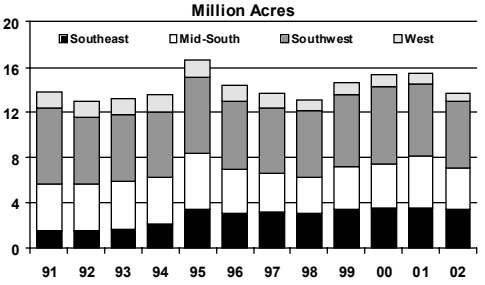

Exhibit 29

Southeast Upland Planted Area

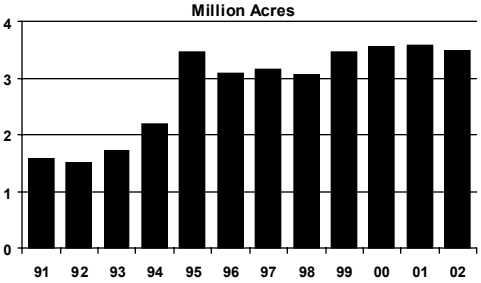

Exhibit 30

Mid-South Upland Planted Area

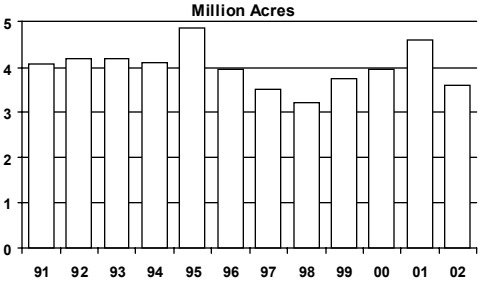

Exhibit 31

Southwest Upland Planted Area

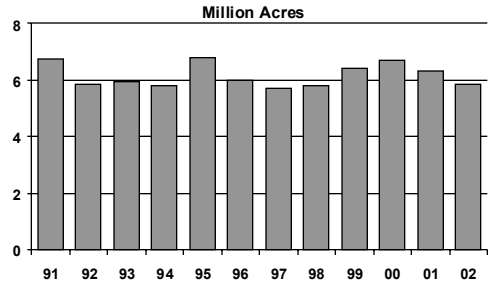

Exhibit 32

West Upland Planted Area

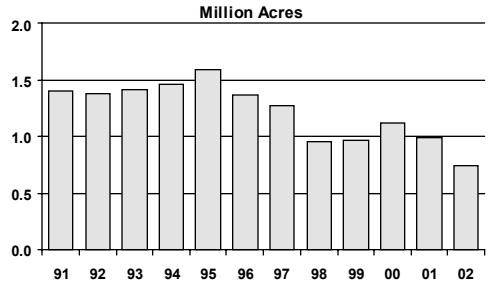

Exhibit 33

U.S. ELS Planted Area

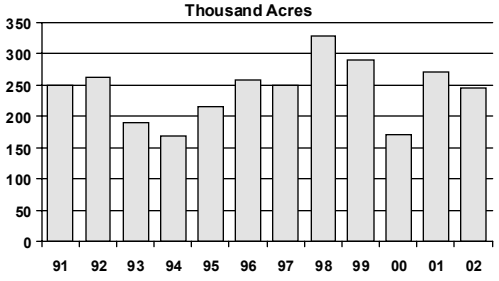

Exhibit 34

U.S. Cotton Abandonment

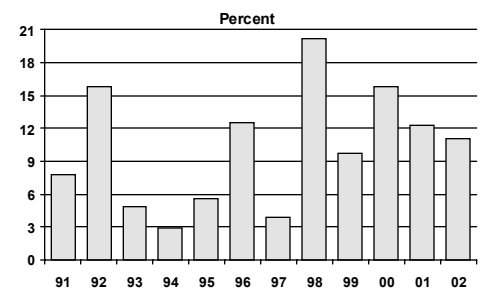

Exhibit 35

U.S. Cotton Yield

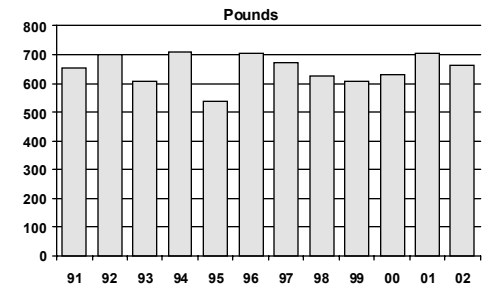

Exhibit 36

Southeast Yields

Pounds per Harvested Acre

	2001	2002	5-Year Average
Alabama	730	511	586
Florida	612	346	539
Georgia	720	582	626
North Carolina	832	412	687
South Carolina	686	328	601
Virginia	929	485	744
SOUTHEAST	751	495	634

Exhibit 37

Mid-South Yields

Pounds per Harvested Acre

	2001	2002	5-Year Average
Arkansas	826	861	752
Louisiana	580	727	644
Mississippi	719	826	732
Missouri	834	796	658
Tennessee	763	729	628
MID-SOUTH	734	803	699

Exhibit 38

Southwest Yields

Pounds per Harvested Acre

	2001	2002	5-Year Average
Kansas	407	608	369
Oklahoma	511	533	496
Texas	481	533	474
SOUTHWEST	482	534	475

Exhibit 39

West Yields

Pounds per Harvested Acre

	2001	2002	5-Year Average
Arizona	1,142	1,262	1,244
California	1,359	1,439	1,222
New Mexico	916	960	722
WEST	1,266	1,356	1,196

Exhibit 40

ELS Yields

Pounds per Harvested Acre

	2001	2002	5-Year Average
Arizona	928	972	868
California	1,283	1,332	1,158
New Mexico	969	946	709
Texas	1,059	1,023	818
ELS	1,254	1,286	1,095

Exhibit 41

U.S. Cotton Production

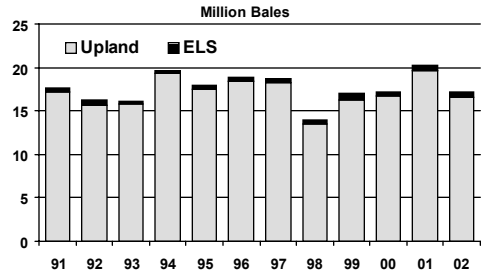

Exhibit 42

U.S. Upland Cotton Production 2002

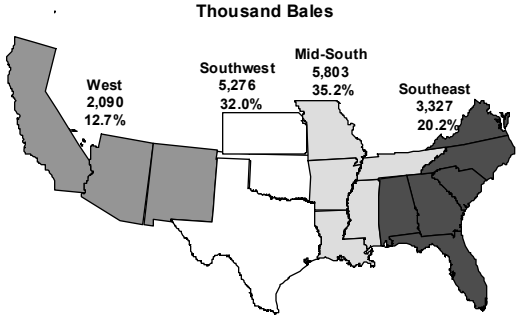

Exhibit 43

U.S. ELS Cotton Production 2002

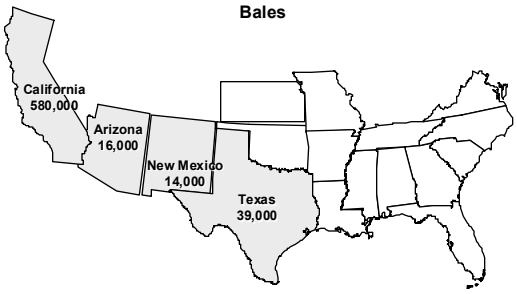

Exhibit 44

U.S. Cotton Beginning Stocks

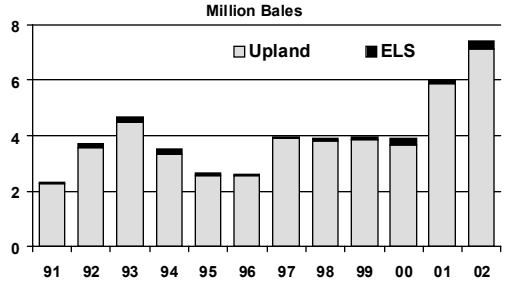

Exhibit 45

U.S. Cotton Supply

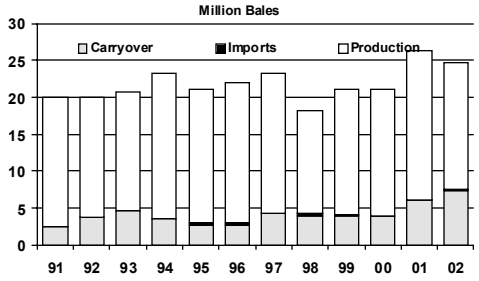

Exhibit 46

2002 Crop Staple and Strength

	Staple		Strength	
	2002	5-Yr.	2002	5-Yr.
Southeast	33.8	34.3	27.2	27.7
Mid-South	34.6	34.7	27.9	27.9
Southwest	33.6	33.4	29.0	28.0
West	36.5	36.0	31.7	30.8
U.S.	34.4	34.8	28.6	28.2

Exhibit 47

2002 Crop Color and Mike

	%SLM+		Micronaire	
	2002	5-Yr.	2002	5-Yr.
Southeast	31.1	78.1	48.0	44.3
Mid-South	65.3	77.7	47.7	45.9
Southwest	80.5	74.1	43.7	41.9
West	97.3	94.0	43.4	43.6
U.S.	67.4	79.3	45.9	44.1

Exhibit 48

CCC Loan Stocks

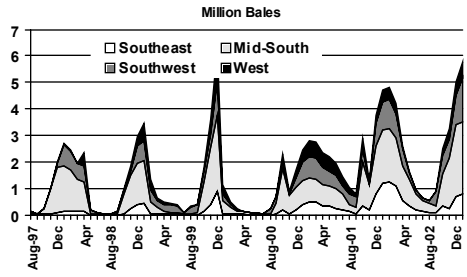

Exhibit 49

Spot 4134 Price

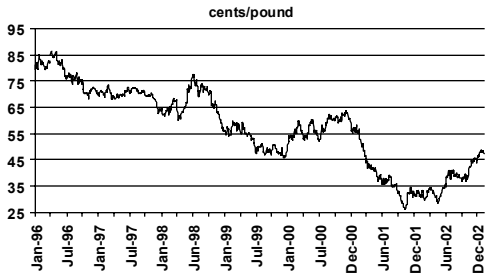

Exhibit 50

"A" Index and Spot 4134

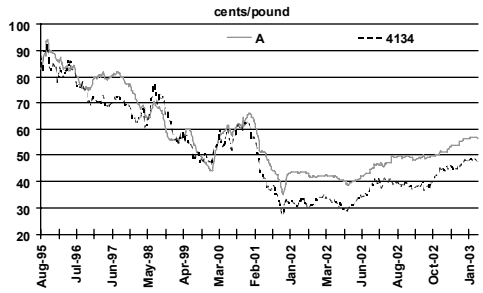

Exhibit 51

ELS Cotton Prices

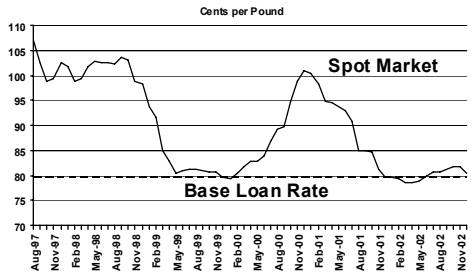

Exhibit 52

U.S. Cottonseed Production

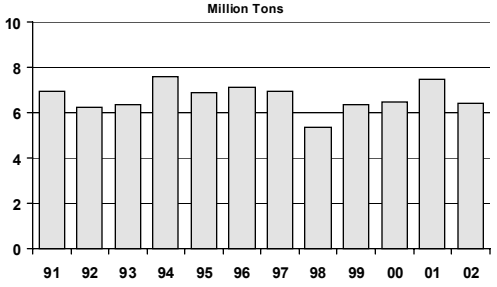

Exhibit 53

U.S. Cottonseed Production 2002

Thousand Tons

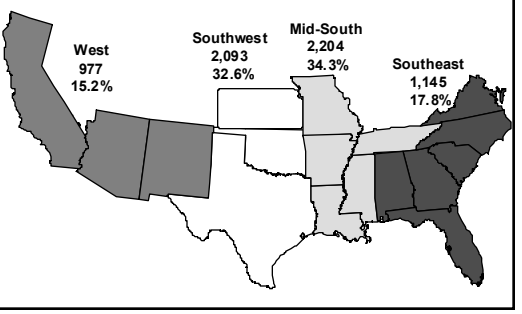

Exhibit 54

U.S. Cottonseed Supply

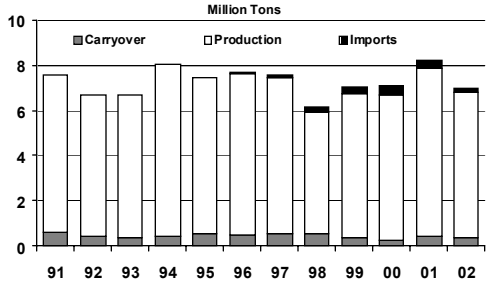

Exhibit 55

U.S. Cottonseed Disappearance

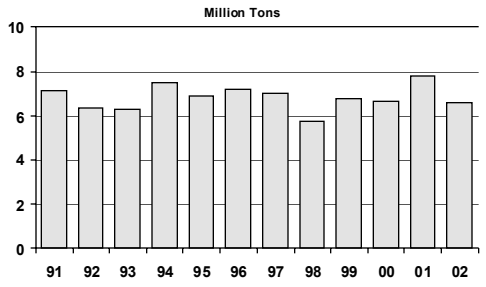

Exhibit 56

U.S. Cottonseed Carryover

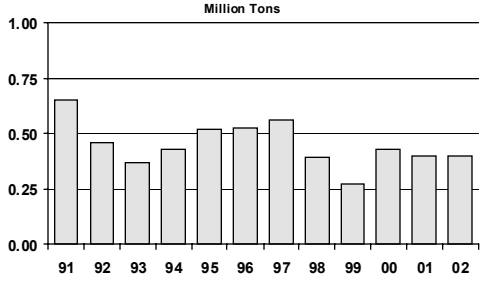

Exhibit 57

AMTA/Direct Payment Rates

Year	Cotton[1]	Corn[2]	Soy.[2]	Wheat[2]	Rice[3]
'96/97	8.88	25.1	0.0	87.4	277
'97/98	7.62	48.6	0.0	63.1	271
'98/99	8.17	37.7	0.0	66.3	292
'99/00	7.88	36.3	0.0	63.7	282
'00/01	7.33	33.4	0.0	58.8	260
'01/02	5.99	26.9	0.0	47.4	210
'02/03	6.67	28.0	44.0	52.0	235

[1] cents per pound [2] cents per bushel [3] cents per cwt.

Exhibit 58

Nearby NY and "A" Index

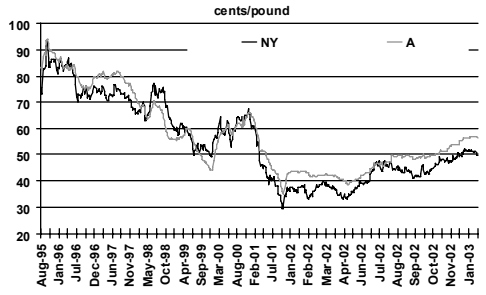

Exhibit 59

December Cotton Futures

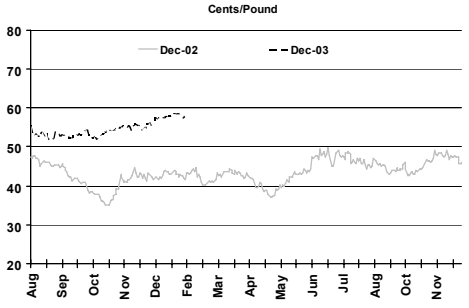

Exhibit 60

September Corn Futures

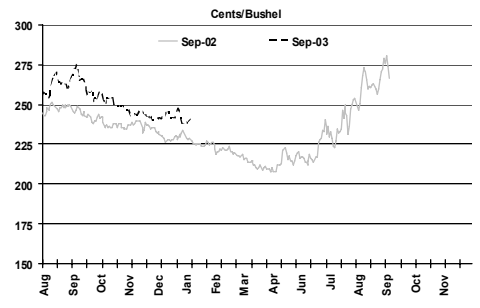

Exhibit 61

November Soybean Futures

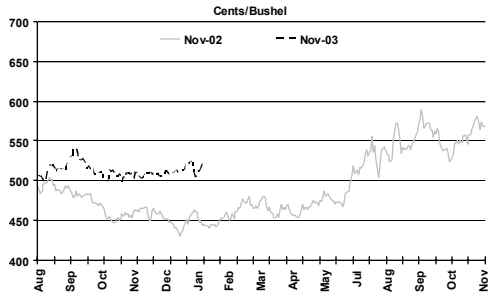

Exhibit 62

U.S. Harvested Area

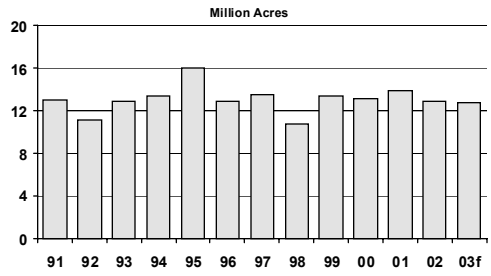

Exhibit 63

U.S. Cotton Supply

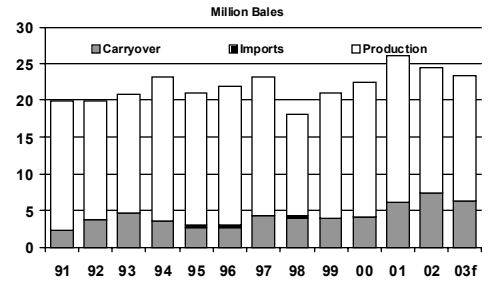

Exhibit 64

U.S. Cottonseed Supply

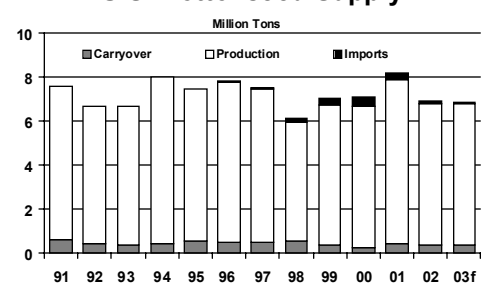

Exhibit 65

U.S. Cotton Mill Use
(Calendar Year, Million Bales)

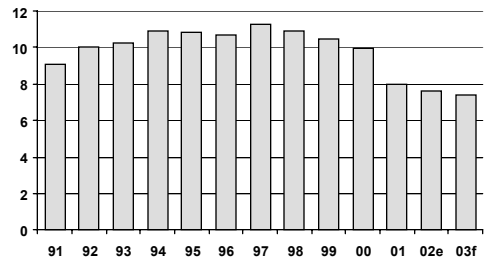

Exhibit 66

U.S. Cotton Mill Use
(Crop Year, Million Bales)

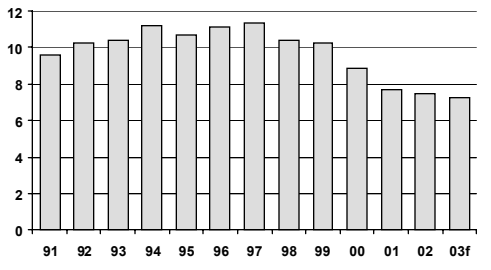

Exhibit 67

Daily Avg. U.S. Cotton Mill Use

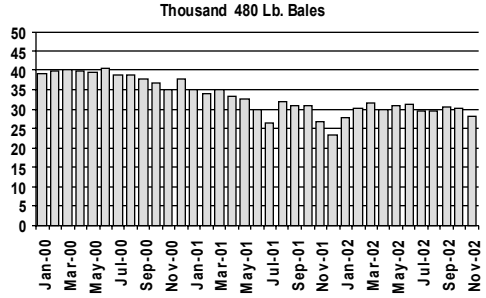

Exhibit 68

Man Made Fiber Mill Use

Million Bales

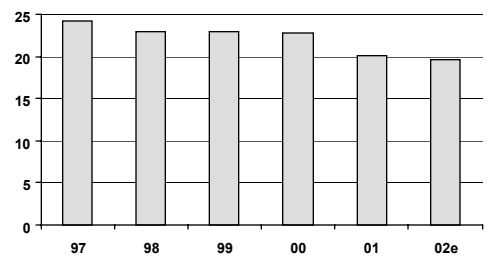

Exhibit 69

U.S. Apparel Production

Million Bales

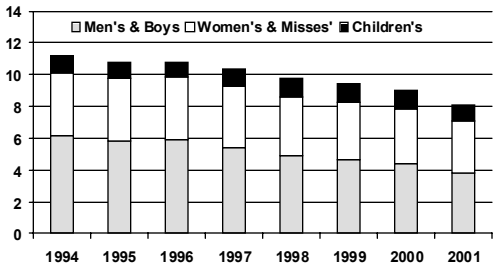

Exhibit 70

Fiber in U.S. Made Apparel

Million Bale Equivalents

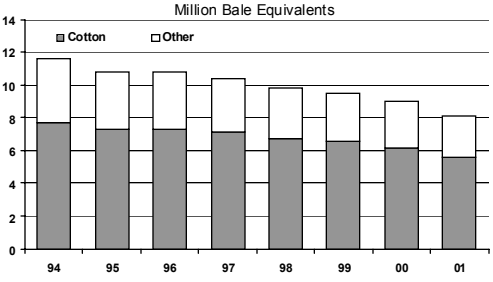

Exhibit 71

Fiber in U.S. Made Home Furnishings

(excludes carpeting)

Million Bale Equivalents

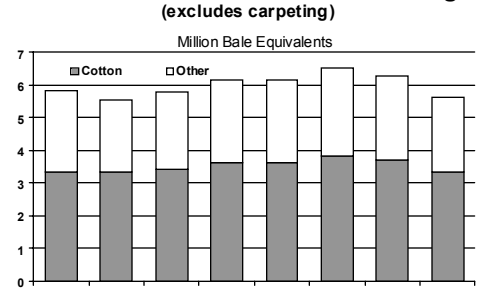

Exhibit 72

Net Domestic Fiber Consumption

Million Bales

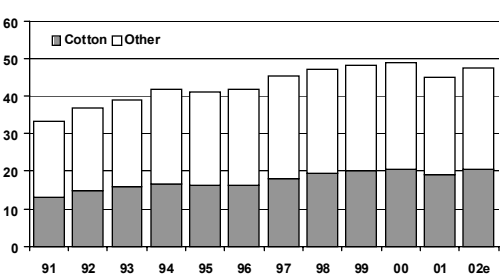

Exhibit 73

Components of Retail Cotton Consumption

Million Bale Equivalents

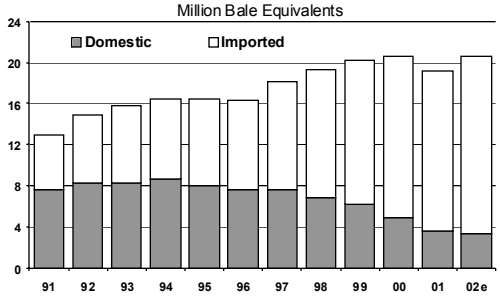

Exhibit 74

Components of Domestically Produced Retail Cotton Consumption

Million Bale Equivalents

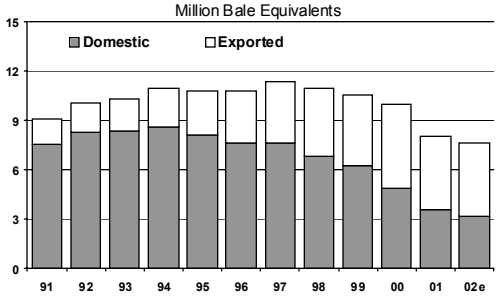

Exhibit 75

U.S. Cotton Textile Imports

Million Bales

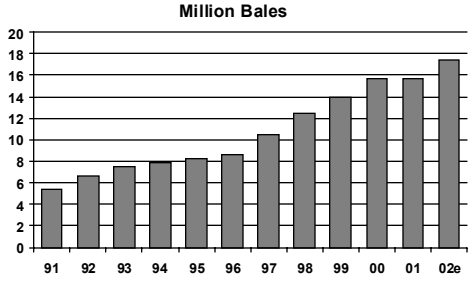

Exhibit 76

U.S. Cotton Textile Import Source

Million Bale Equivalents

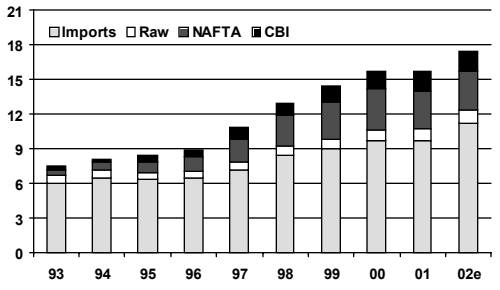

Exhibit 77

U.S. Cotton Product Imports

Million Bale Equivalents

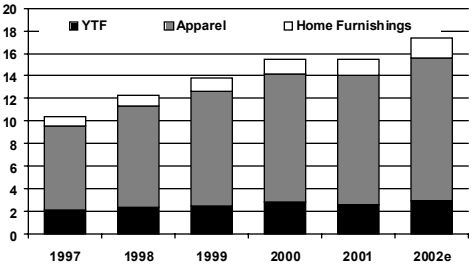

Exhibit 78

U.S. Imports of Cotton Products

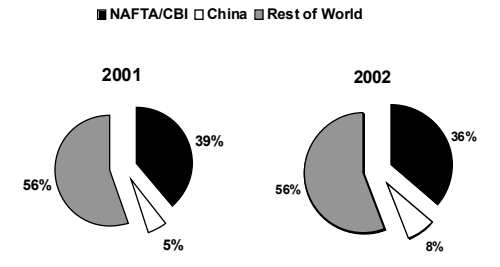

Exhibit 79

U.S. Trade With Mexico

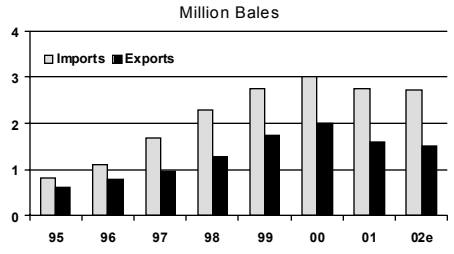

Exhibit 80

U.S. Trade With Canada

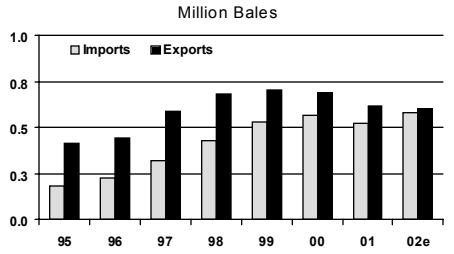

Exhibit 81

U.S. Trade with CBI

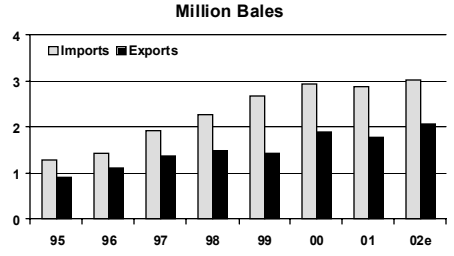

Exhibit 82

U.S. Imports from China

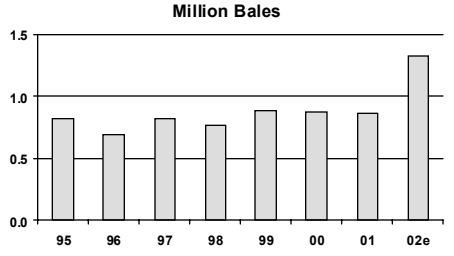

Exhibit 83

Cotton Product Imports from Mexico

Million SME

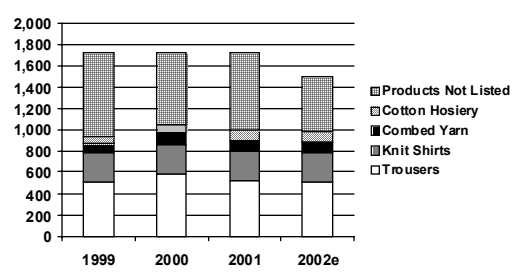

Exhibit 84

Cotton Product Imports from Canada

Million SME

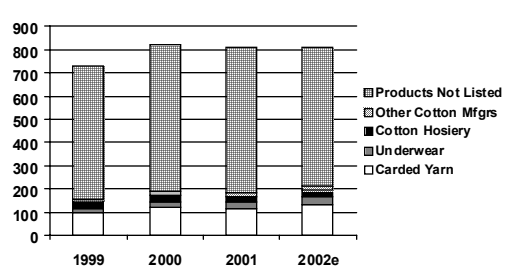

Exhibit 85

Cotton Product Imports from CBI

Million SME

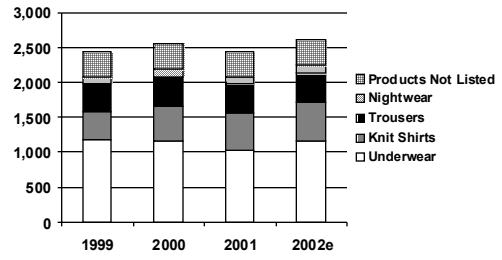

Exhibit 86

Cotton Apparel Product Imports from AGOA

Million SME

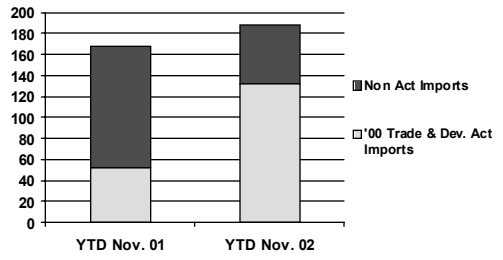

Exhibit 87

Cotton Product Imports from Pakistan

Million SME

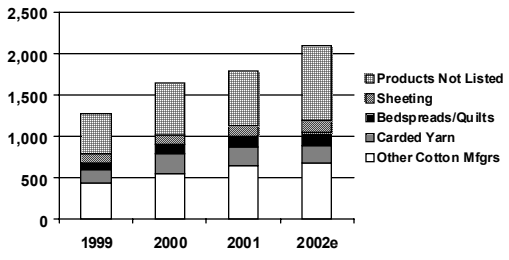

Exhibit 88

Cotton Product Imports from China

Million SME

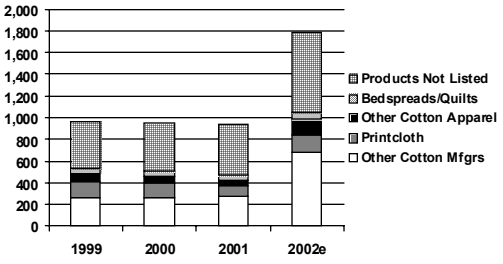

Exhibit 89

Cotton Product Imports from India

Million SME

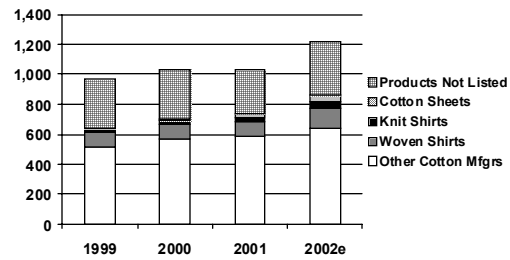

Exhibit 90

Cotton Product Imports from Hong Kong

Million SME

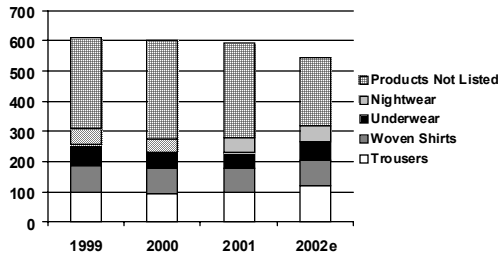

Exhibit 91

Cotton Product Imports from Bangladesh

Million SME

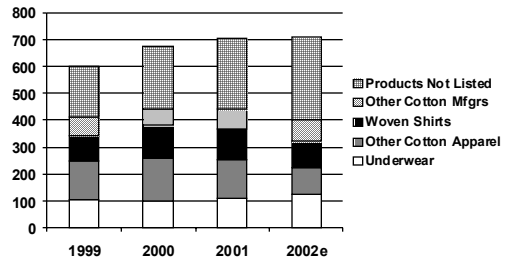

Exhibit 92

U.S. Cotton Textile Exports

Million Bales

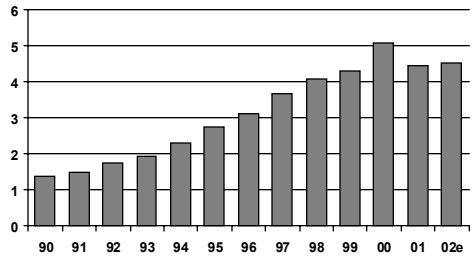

Exhibit 93

U.S. Cotton Product Exports

Million Bale Equivalents

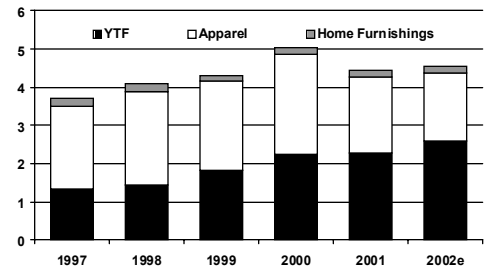

Exhibit 94

U.S. Exports of Cotton Products

Million Bales

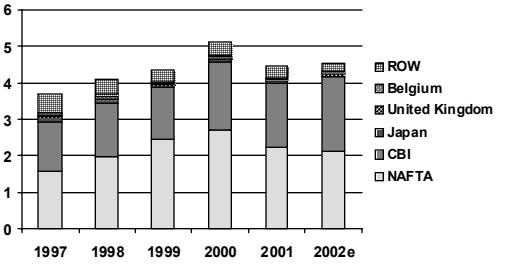

Exhibit 95

U.S. Cotton Product Imports from China

(No Longer Subject to Quotas as of Jan. 1, 2002)

Million SME

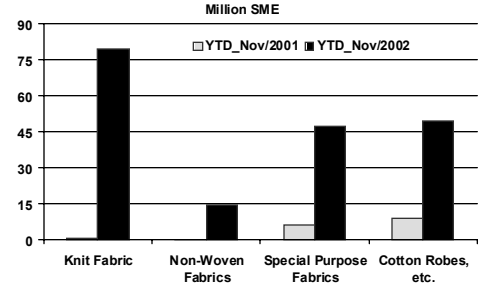

Exhibit 96

World Cotton Production

Million Bales

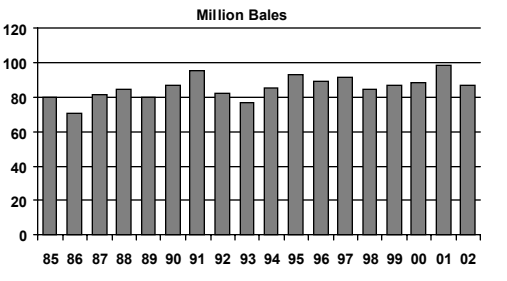

Exhibit 97

"A" Index

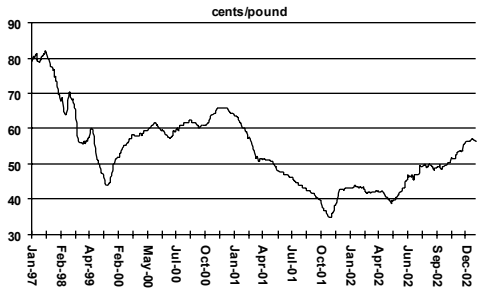

Exhibit 98

China Cotton Production

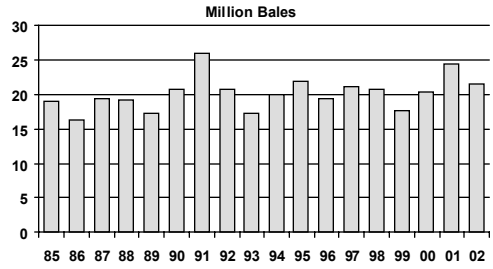

Exhibit 99

India Cotton Production

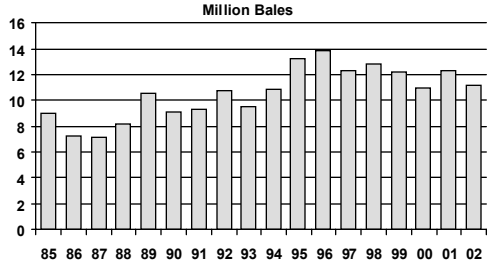

Exhibit 100

Uzbekistan Cotton Production

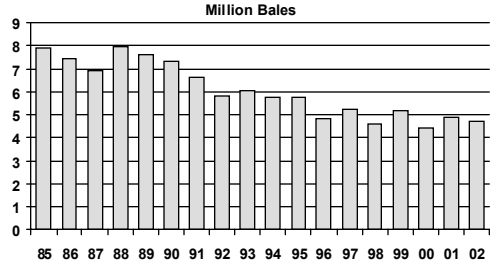

Exhibit 101

Pakistan Cotton Production

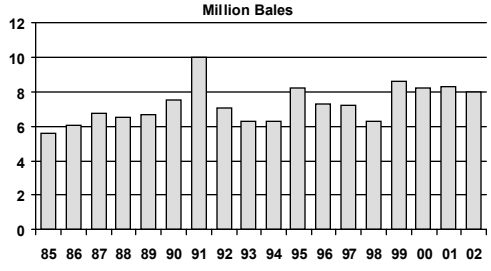

Exhibit 102

Turkey Cotton Production

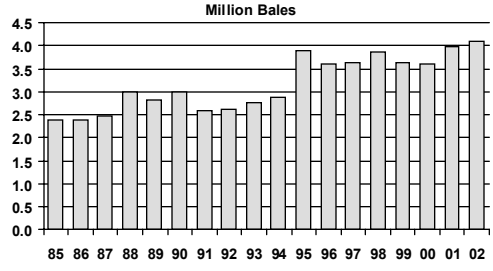

Exhibit 103

Australia Cotton Production

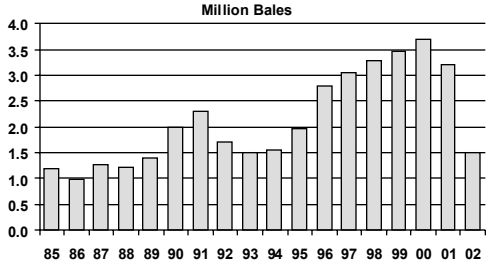

Exhibit 104

Brazil Cotton Production

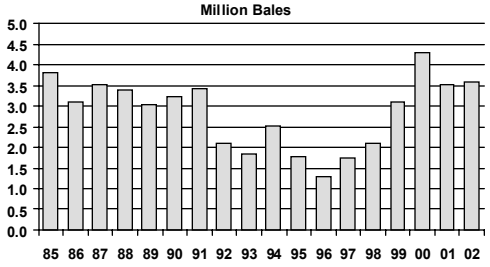

Exhibit 105

West Africa Cotton Production

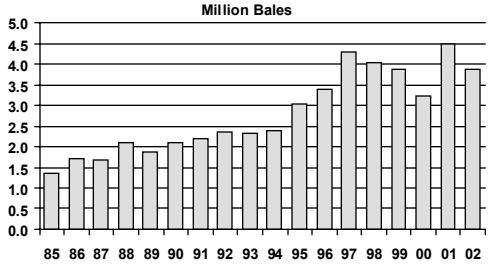

Exhibit 106

World Cotton Production

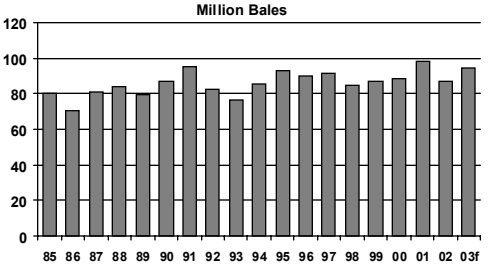

Exhibit 107

World Fiber Demand

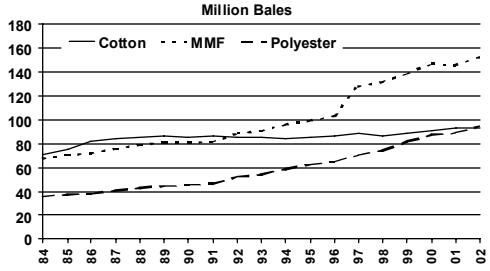

Exhibit 108

World Cotton Mill Use

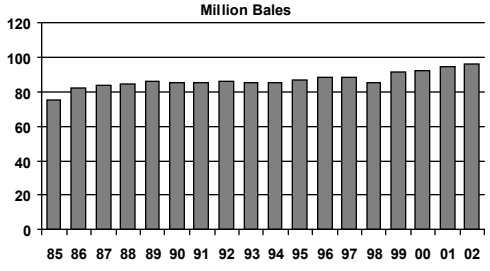

Exhibit 109

China Cotton Mill Use

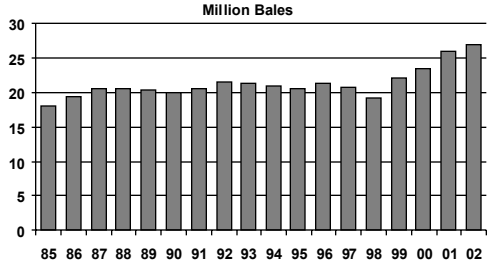

Exhibit 110

India Cotton Mill Use

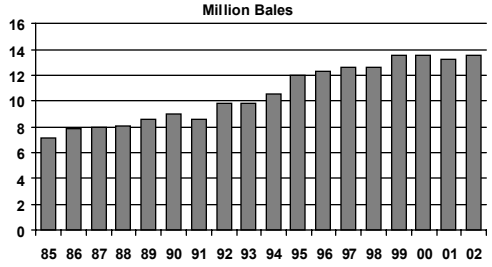

Exhibit 111

Pakistan Cotton Mill Use

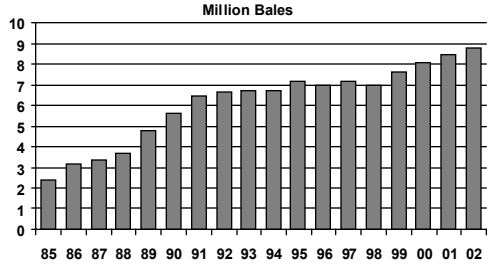

Exhibit 112

Turkey Cotton Mill Use

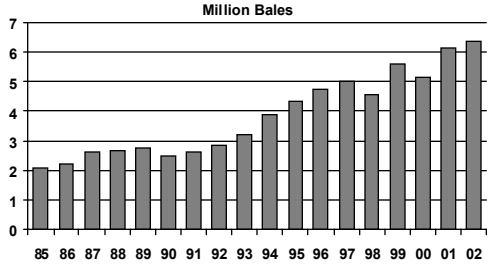

Exhibit 113

Brazil Cotton Mill Use

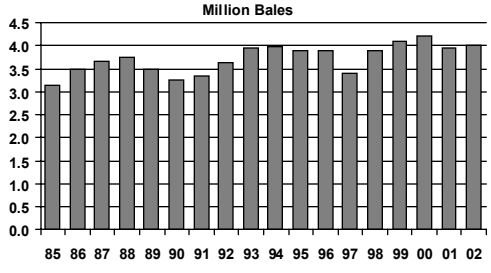

Exhibit 114

Mexico Cotton Mill Use

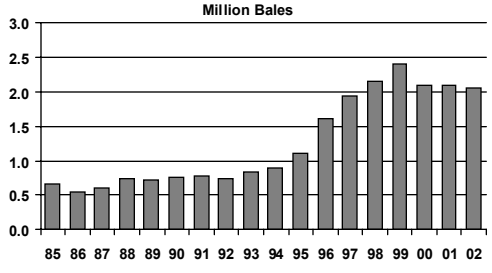

Exhibit 115

Indonesia Cotton Mill Use

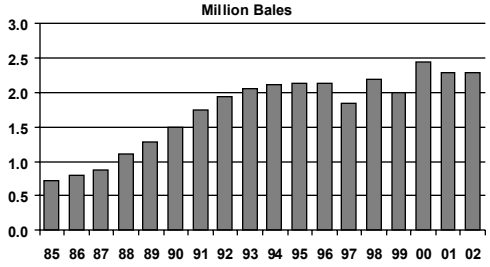

Exhibit 116

World Cotton Mill Use

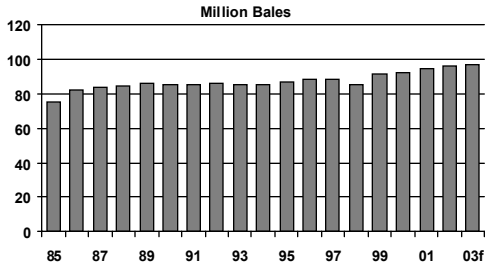

Exhibit 117

World Trade Share of Mill Use

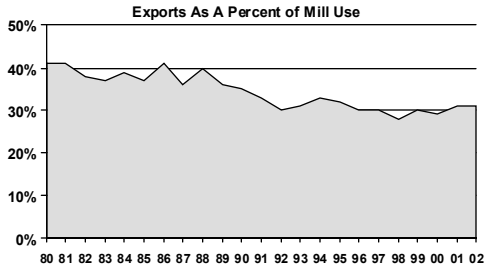

Exhibit 118

World Cotton Exports

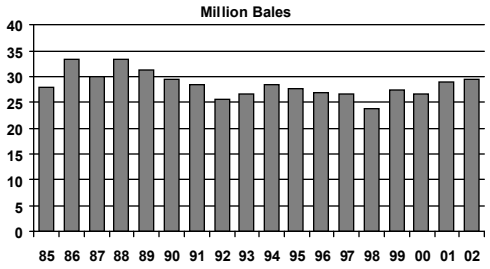

Exhibit 119

U.S. Cotton Exports

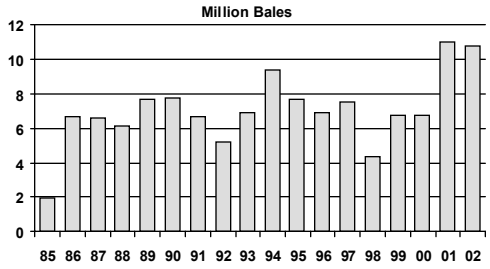

Exhibit 120

Top U.S. Raw Cotton Export Destinations

1990		2002YTD	
Country	(000 480-Lb. Bales)	Country	(000 480-Lb. Bales)
Japan	1,538	Mexico	1,971
China	1,347	China	709
South Korea	1,185	Canada	593
Indonesia	552	Indonesia	585
Italy	424	Turkey	544
Taiwan	354	Japan	370

Exhibit 121

Uzbekistan Cotton Exports

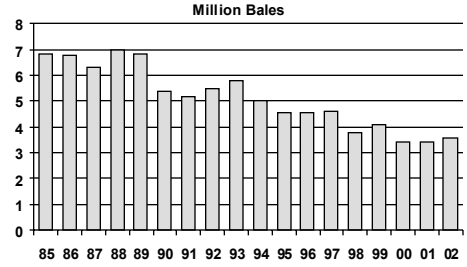

Exhibit 122

Chinese Net Trade

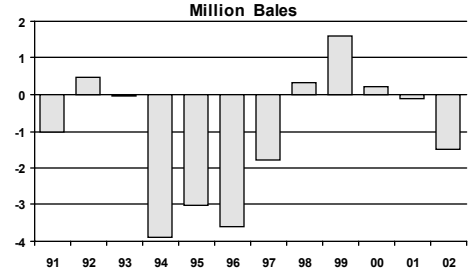

Exhibit 123

Australia Cotton Exports

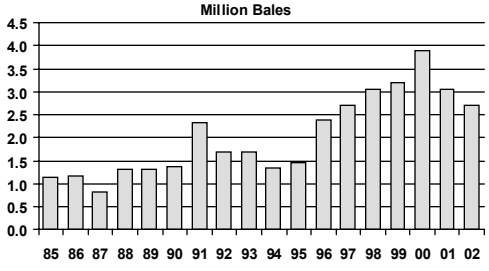

Exhibit 124

West Africa Cotton Exports

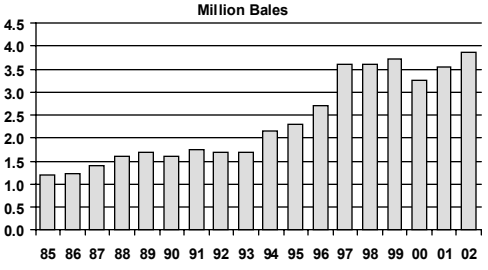

Exhibit 125

India Cotton Exports

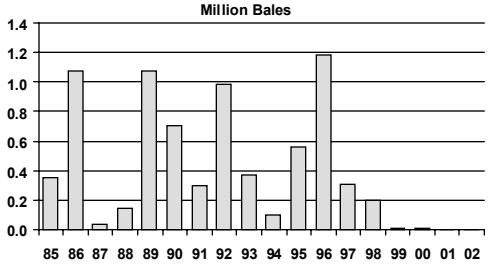

Exhibit 126

Pakistan Cotton Imports

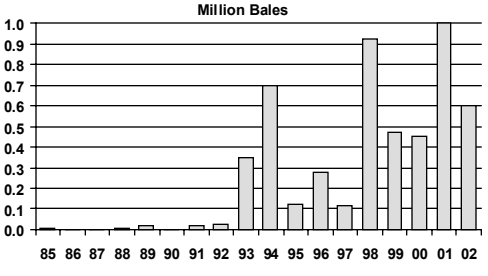

Exhibit 127

World Cotton Exports

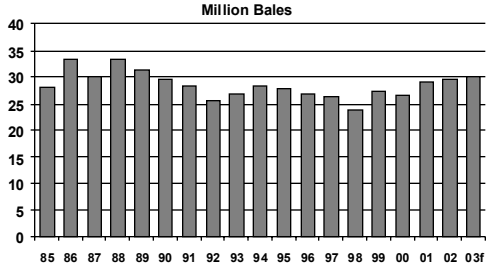

Exhibit 128

U.S. Cotton Exports

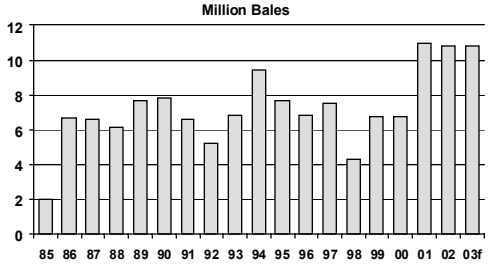

Exhibit 129

World Cotton Ending Stocks

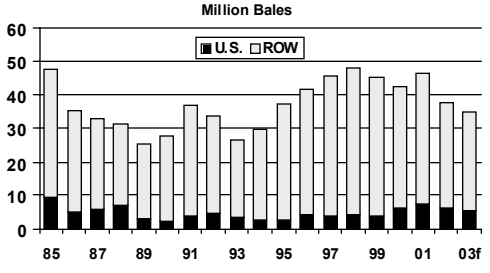

Exhibit 130

U.S. Supply and Demand

Million Bales

	2002/03	*2003/04*
Beginning Stocks	7.43	6.30
Production	17.14	17.10
Imports	0.03	0.03
Total Supply	24.60	23.43
Mill Use	7.50	7.30
Exports	10.80	10.70
Total Offtake	18.30	18.00
Ending Stocks	6.30	5.43
Stocks-to-Use Ratio	34.4%	30.2%

Exhibit 131

World Supply and Demand

Million Bales

	2002/03	*2003/04*
Beginning Stocks	46.63	37.92
Production	87.40	94.00
Imports	29.85	30.15
Total Supply	163.88	162.07
Mill Use	96.45	97.10
Exports	29.57	30.00
Total Offtake	126.02	127.10
Unaccounted	-0.06	-0.05
Ending Stocks	37.92	35.02
Stocks-to-Use Ratio	39.3%	36.1%