FACTORS AFFECTING THE CHINA BALANCE SHEET IN 2004/05

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Expectations of China’s cotton supply and demand have taken a wild ride this year, largely due to the huge swings in production estimates over the course of the year—moving from an optimistic outlook early in the year based on the 22 percent growth in sown area, turning to a very pessimistic outlook in the fall as bad weather took a toll on the crop in many areas. Finally, however, both of these perspectives proved incorrect, as China’s National Bureau of Statistics (NBS) released an estimate of output in January of 4.87 million tons—only marginally below the previous year.

Now that 2003/04 is more than half way over, however, it is time to begin thinking about China’s likely cotton supply and demand for 2004/05. Unfortunately, however, this is complicated by the fact that this year’s China balance sheet remains a bit of a moving target. Therefore, rather than focusing entirely on constructing and justifying estimates for 2004/05, the following analysis will also examine in detail some of the underlying factors—particularly the key uncertainties—that lie beneath any cotton balance sheet exercise for China. In addition, as examining all of the components of the balance sheet in detail is well beyond the scope of a short paper, the discussion will focus on the two largest single items in the balance sheet—production and consumption.

Area, Yield and Production

Area. The few provincial early planting intention surveys available to date suggest China’s cotton area in 2004/05 is likely to expand given the sharply higher prices received by farmers in 2003/04. The question, of course, is by how much?

Looking at Xinjiang, the largest cotton-producing province in China, early indications are that area will expand, though perhaps less than in the coastal regions. In a recent speech, Zhang Qingli, commander-in-chief of the Xinjiang Production and Construction Corps (PCC) farms, stated that area sown to cotton in 2004/05 on the PCC farms would be roughly 447,000 hectares, a decline of 1.4 percent. Instead of expanding area, the PCC farms would continue their drive to boost yields in order to increase output.

In contrast, private, non-PCC Xinjiang farms, which accounted for 44 percent of the province’s total cotton area in 2003/04, are likely to expand area rather sharply this coming year, as these small, private farms appear to have become increasingly responsive to price and market signals in the past few years. This responsiveness can be seen in the increasing divergence between the annual percent change in sown area between PCC and non-PCC farms since 1999 (Chart 1). In the last two years, for instance, non-PCC area sown to cotton fell by 23.2 percent and then rose by 15.4 percent. The corresponding changes in PCC area in those two years was a decline of just 7 percent and an increase of just 3 percent. Even more telling is the fact that the changes in non-PCC farm area in the last two years accounted for 82 and 85 percent, respectively, of the total change in provincial cotton area.

Assuming that PCC farms hold area slightly below last year, but PCC farms boost area by as much as 15 percent, total cotton area in Xinjiang in 2004 would rise 7.8 percent to approximately 1.116 million hectares—somewhat lower than the increase in 2003 of 9.6 percent. However, this lower growth hinges completely on the decision of the PCC farm managers to hold area steady. Although they have stated that this is the PCC plan for 2004/05, that decision could well change as the year progresses, which would boost area above the 9.6 percent growth.
Looking at the coastal or inland areas of China, the cotton area situation is much more complicated given the relatively small size of the farms and the influence competing crops can have on area sown to cotton. First, the prices of the various main competing crops all increased rather sharply in 2003, though these increases paled in comparison to cotton. Looking at the prices of the main competing grain and oilseed crops (Chart 2), the increase in cotton prices in 2003 ranged from 2 times the increase in soybean prices to 10 times the increase in wheat and japonica rice prices.

If comparable price differential’s remain in place over the next few months, cotton planting in the main North China Plain and Yangtze River Valley growing regions will likely increase sharply. Most of the increased cotton area is likely to come from the grain crops, with soybean and vegetable area likely remaining unchanged or even increasing modestly depending on the location. However, the recent outbreak of the bird flu in many parts of China may impact this forecast. Most of the key importers of Chinese poultry have banned imports from China for the time being. In addition, the government has undertaken the widespread slaughtering of bird flocks in order to control the outbreak. If the situation is not contained very quickly, together these could result in a sharp decline in demand for feed grains and protein meal, pushing down prices for corn and soybeans, further increasing the relative attractiveness of planting cotton.

Looking at the North China Plain and the Yangtze River Valley, the only indications to date of how much farmers might increase cotton area are some early planting intention surveys conducted in the provinces of Shandong, Jiangxi and Henan. In a late January survey of 1,000 farm households in Shandong, the Provincial Price Bureau found that farmers on average intended to increase their area sown to cotton this year from 1.13 mu (0.075 hectares) to 1.35 mu (0.09 hectares), an increase of 19.5 percent.
A second survey of 2,383 farm households conducted by the Shandong Provincial Agriculture Bureau found that area sown to cotton in the surveyed households was likely to rise from the 9,134 mu (609 hectares) planted in 2003 to 11,065 mu (738 hectares) in 2004, an increase of 21.14 percent. However, the survey also found that farmers in the area most impacted by the poor weather last fall, the major cotton-growing area in and around Heze in the southwest corner of the province, were only planning to increase area sown to cotton by about 6 percent. This contrasts with an increase in the other areas of the province of 23.4 percent. This lower growth in expected area is attributed to the sharply reduced income last year for cotton farmers because of the bad weather, reducing the cash available for farmers to purchase inputs this year. Given the scenario of much lower growth in the major growing area, the Provincial Agriculture Bureau scaled back its estimate of area sown to cotton for the entire province to 1.047 million hectares, an increase of 18.7 percent (a reduction from the 21.4 percent implied in the raw survey results).

A similar survey of the planting intentions of 300 farm households in Jiangxi Province conducted by the Provincial Agriculture Bureau found that total area in the province in 2004 would likely increase by between 15 and 20 percent. Another survey of planting intentions in Sichuan Province, though a very a minor producer in the southwest, indicated sown area was likely to increase by an incredible 70 percent.

And finally, a survey of farm households in Henan conducted by the Provincial Agriculture Bureau found that cotton area planting intentions suggested an increase in provincial sown area of 10 percent to approximately one million hectares. However, the survey found sharp differences in planting intentions between major and minor growing areas, with many households in major growing regions anticipating that cotton area would remain roughly unchanged from last year, while households in minor growing areas expected to increase cotton area between 20 and 30 percent. Similar to the situation reported in Shandong Province, households in the major cotton-growing areas suffered a severe reduction in output last year (as total provincial lint output fell almost 51
percent from 2002 output, despite the 17-percent increase in sown area). Although seed cotton prices in the province soared last season, net income from cotton generally fell by as much as half as poor weather sharply reduced yields. This is expected to reduce the cash available to growers in the worst hit areas—which also are many of the major cotton-growing areas—and thus reduces their ability to purchase enough inputs to expand their area sown to cotton.

Farmers in these four provinces, which includes two top-tier producers and two bottom-tier producers, all indicate a desire to increase area by 10 to 20 percent (excluding the growth in Sichuan), suggesting a reasonable upper bound on the possible non-Xinjiang cotton area for 2004 of 4.882 million hectares (an increase of 20 percent). Combined with similar growth in sown area on non-PCC Xinjiang farms and a small decrease (down 1.4 percent) in PCC area, the upper bound for total national sown area in 2004 comes in at 6.027 million hectares. Although an increase of 18.1 percent over the level of last year, it is nonetheless lower than the 22 percent growth in area in 2003 and is still well below the all-time high of 6.835 million hectares set in 1992/93.

At the other end of the scale, the sharp increase in cotton prices last year relative to other crops suggests that even a low growth scenario for 2004 will show a healthy increase in national sown area. Given the relatively modest planting intentions by households in major growing regions worst hit by weather last year and the fact that the strong growth in planting intentions are concentrated in minor growing areas, a reasonable lower bound for growth in total non-Xinjiang cotton area this year would be approximately 10 percent—a figure which assumes that little to only very modest growth occurs in the key southwestern growing area of Shandong and most of the major growing areas in Henan, Anhui and Jiangsu. The growth in the non-major growing areas is assumed to be larger, but is not enough to boost the growth in non-Xinjiang cotton area above that 10 percent level. Adding in the same Xinjiang area assumptions from the upper bound scenario discussed earlier, but reducing non-PCC area to match the 10 percent growth assumed outside of Xinjiang, total national cotton area in this lower bound scenario increases about 9 percent from last year to 5.562 million hectares.

Noting the significant amount of uncertainty surrounding household planting intentions this year, which is further exacerbated by the sharp increase in area last year and the dramatic reduction in yields in many areas, a middle-of-the-road estimate for total non-Xinjiang cotton area next year is around 15 percent. Adjusting growth in non-PCC cotton area to match this growth, a moderate scenario for total national cotton area in 2004 is for growth of about 13.5 percent to 5.795 million hectares.

Yield. Moving on to yields, the most conservative low-growth approach to a yield forecast for next year would be to simply take a 5-year average yield of 1,071 kilograms per hectare. Although this is an increase of 12.3 percent from last year, the fact that it includes the disastrous yields of 2003 means that it is 8.8 percent below the 1,175 kilogram per hectare yields of 2002.

A high-growth approach to yields in 2004 would be to assume that weather is normal and that yields in 2004 return to the level of 2002. This would give a national yield of 1,175 kilograms per hectare and would be an increase of 23.1 percent over last year.
A moderate-growth scenario for yields would be to take a 3-year average of the years 2000-2002, thus excluding the impact of the sharp reduction in yields seen last year. Although yields increased in 9 out of 10 years of the decade preceding last year’s sharp yield decline, the reduction in net farm income in the worst hit areas last season could see a lessening of the strong upward move seen in yields over the last decade. Assuming a return to “normal” weather next year, a moderate yield would be 1,082 kilograms per hectare, based on average 2000-2002 yields. Although this would be an increase of 13.4 percent over last year’s extremely poor yields, it is a modest reduction in growth (down 7.9 percent) versus the record-high yields of 2002.

**Production.** Pairing the three area and three yield scenarios described above, the lower bound of cotton production next year is 27.4 million 480-lb bales and the upper bound is 32.5 million bales. The most reasonable or moderate-growth scenario gives production in 2004 of 28.8 million bales, an increase of 28.8 percent from 2003 and up 17.7 percent from the more recent high of 24.5 million bales in 2001/02. The increase in area (up 13.5 percent) and recovery in yield (up 13.4 percent) are roughly even contributors to the 29-percent jump in production. Note that if production does reach this level, it would just breach the previous record high production of 28.7 million bales set in 1984.

**Consumption**

China’s cotton consumption story in 2003 was typified by the phrase “more, more, more.” Calendar year 2003 total yarn production, including cotton, cotton blend, and MMF yarn, soared to 9.284 million tons, up from the final revised figure of 8.5 million tons last year. I am currently estimating China’s cotton consumption in 2003/04 at approximately 31 million 480-lb bales, up 5.6 percent from estimated consumption in 2002/03 of 29.36 million bales. USDA is carrying consumption for 2002/03 and 2003/04 at 29.5 million and 30.5 million bales, respectively. At first glance the 500,000-bale difference between the USDA and Globecot estimates for 2003/04 might appear rather large. However, it is important to recognize that the lack of specific and relevant cotton consumption statistical data for China means that it is necessary to make several critical assumptions in order to arrive at a national cotton consumption estimate.
**Uncertainties.** Before going into the outlook for consumption next year, it is useful to delve a little deeper into the areas of uncertainty and measure the sensitivity of the China cotton consumption estimate to the most important of the underlying assumptions. The first key area of uncertainty is estimating the annual growth rate of total yarn production. Generally speaking, a one-percent error in the assumed growth rate of yarn production for the entire marketing year equates to approximately 255,000 480-lb bales of cotton consumption. As the year progresses and the number of months being estimated is reduced, the impact of an error in the assumed growth rate for the remaining months diminishes proportionally.

A second key uncertainty revolves around the revision of China’s preliminary monthly yarn output figures. China releases preliminary monthly production figures between the 10th and 15th of the following month. But, revised monthly yarn production figures are never released. Instead, in late February of the following year, a revised annual calendar year production figure is released. The revision can be significant, as seen in the upward revisions in 2001 and 2002 of 635,500 tons and 511,400 tons, respectively. Revisions of this size have a significant impact on the China consumption estimate. In general, a 100,000-ton revision to a calendar year yarn production number results in a 290,000 480-lb bale change in marketing year cotton use. With respect to current yarn production of over 9 million tons, a one percent error in estimating the revision equates to about 425,000 bales of cotton use.

While the revision to the annual yarn number is essential to coming to grips with the cotton use figure, it is problematic because it is on a calendar year basis and the consumption estimate is on a marketing year basis, thus requiring allocating the revision across two marketing years. A related problem is the significant delay in obtaining the revision. We are now waiting on the revision to the calendar year 2003 figure, which will impact not only the estimate of consumption for 2003/04, but also the estimate for 2002/03—long after most analysts have put the 2002/03 estimate to bed. Thus, until the revised 2003 number is released (hopefully later this month), the estimate for 2002/03 is based on an assumed “revision factor.” Although revisions in some years are very large (more than 500,000 tons), revisions in other years (1999 and 2000) have been nominal (26,000 tons or less). Given this huge difference in revisions year-to-year, the potential impact of a major under (over) estimate of the revision is enormous—in a worst case scenario, missing the revision to an annual calendar year yarn figure by 400,000 tons would change the marketing year cotton consumption by well over one million bales.

The third key area of uncertainty, one that has grown in importance this year, is the issue of breaking out cotton from the total yarn production figure released by China. Although China has never released official statistics for the cotton fiber share within total yarn production, several time series have been published or made available by China’s national textile organizations over the last decade or so. This data forms the basis for estimating the cotton share. In addition, as a check, China’s annual pure cotton, cotton blend and pure MMF yarn production figures, adjusted by reasonable estimates of the quantity of cotton fiber in each product category, tracks rather closely with those ratios.

Despite the reasonable confidence in the historical data, the problem is estimating the current year when no cotton fiber ratio or detailed cotton yarn production data is yet available. In addition, in years when there are significant changes in the relative prices of cotton and polyester staple, there is a greater chance of significant change in the ratio. The importance of the estimate of cotton fiber share cannot be overstated—a one percent change in the assumed cotton fiber share equates to 500,000 480-lb bales of cotton consumption.

The last major uncertainty is non-mill consumption of cotton. Little hard statistical evidence is available to estimate this category of use. In general, it includes on-farm use of cotton to stuff jackets or bedding, military use (such as for bomb fuses), and medical use (such as for bandages). On-farm use was a major source of consumption up until the late 1980s, after which it began to fall quickly as farmers increasingly purchased factory-made cotton products. However, beginning in about the mid-1990s, consumption of cotton for medical uses began to expand. Military use of cotton remains largely a mystery. Various estimates of total annual non-mill use of cotton in China tend to range from about 300,000 up to as much as 600,000 480-lb bales.
To put this entire basket of uncertainties into perspective, a one-percent over (under) statement of all three of the main areas of uncertainty (total yarn production, the annual revision, and cotton fiber share) would decrease (increase) the current marketing year estimate of cotton consumption by approximately 1.18 million bales.

**Key Consumption Drivers in 2004/05.** One of the critical issues that will impact China’s cotton consumption in 2004/05 is the December 31, 2004 end to the Agreement on Textiles and Clothing—and with it the quota system for international trade in textiles and clothing. Although it is impossible to accurately predict the impact of this event on global textile trade, China is clearly poised to gain a significant amount of trade from countries that are less competitive, but have survived due to their quota.

Perhaps the best way to come to grips with the impact of the end of textile and apparel quotas on cotton consumption in China is to look at how China’s textile and apparel trade with the United States, one of its largest export markets along with the E.U., changed following the last Stage (Stage 3, as of December 31, 2001) of the elimination of the ATC quota system. In 2002, the volume of China’s total textile and apparel exports to the U.S. increased 125 percent to 4.96 billion square meter equivalents. Through November of 2003, U.S. imports from China have risen by another 69 percent to 7.51 billion square meter equivalents. However, China’s shipments of just the items released from quota in Stage 3 increased by 362 percent in 2002 and a further 103 percent in the first 11 months of 2003 (Chart 3).

**Chart 3--U.S. Imports of Textiles & Apparel from China, Stage 3 Impact**

Although China’s overall textile and apparel shipments have been increasing, shipments of the products released from quota at the end of 2001 increased much, much faster. But, this figure still obscures the impact on cotton consumption, as the number of cotton products released at Stage 3 was quite small (just knit fabric, cotton gloves/mittens, cotton dressing gowns, and other cotton apparel). Making a rough calculation of the amount of cotton contained in just those items released from quota at Stage 3, China’s exports to the U.S. in 2002 rose 207
percent to the equivalent of approximately 264,888 480-lb bales of cotton. Shipments of just these four product categories rose an estimated 60 percent more in 2003, reaching the equivalent of 414,756 bales of cotton.

While this jump in shipments of cotton products helps to explain some of the recent rapid rise in China’s cotton consumption, it is also clear that the largest impact will follow the final stage (Stage 4) of quota elimination. To put the importance of the Stage 4 quotas in perspective, total U.S. imports of Stage 3 cotton products from China in 2001 (prior to the quota elimination) amounted to the equivalent of approximately 86,216 480-lb bales of cotton, while imports of Stage 4 cotton products in 2001 amounted to the equivalent of approximately 520,630 480-lb bales of cotton—more than six times greater (Chart 4).

Even taking into account the “other cotton product” category of products (largely cotton made-ups) which was liberalized across stages 2, 3 and 4, the stage 4 products still accounted for a greater amount of cotton products shipped in 2001 than the stage 3 products. Breaking out the individual textile products in the other category by HS code, the total cotton equivalent of the other cotton products liberalized in stage 3 totaled about 279,268 480-lb bales in 2001, versus 4,895 bales of product scheduled for stage 4 liberalization. Adding these amounts to the other stage 3 products noted above (86,216 bales), the total volume of cotton products shipped in 2001 that were scheduled for liberalization under stage 3 was the equivalent of 365,483 bales, substantially lower than the total of 525,525 (520,630 bales plus 4,895 bales) bales shipped in 2001 that were scheduled for liberalization under stage 4. Thus, in 2001 prior to the start of the liberalization, the total stage 4 products were roughly 1.4 times the size of the products scheduled for liberalization in 2002 under stage 3, suggesting that the impact on China’s cotton consumption from the stage 4 liberalization will be at least as strong as the impact from the stage 3 liberalization—if not even greater.

Chart 4--U.S. Cotton Product Imports from China by Stage in 480-lb Bale Equivalents
This suggests that the U.S. is likely to see a strong increase in imports from China of the cotton textile and apparel products that are removed from quota as of January 1, 2005. As China’s producers will anticipate this, there will likely be an increase in output of these products several months prior to the change as producers prepare to increase shipments. Thus a rather dramatic increase in offtake of cotton is possible beginning as early as October of 2004/05—meaning that perhaps 10 months of the marketing year will see consumption growth driven by the elimination of quota. Even bearing in mind that some portion of the increase in cotton product shipments to Europe and North America will simply be the direct shipments of products that were once transshipped, the potential for a significant increase in new shipments—largely at the expense of more marginal suppliers—is very real. (Other suppliers, such as Pakistan and India, are likely to join China in boosting cotton product exports to Europe and North America.) From the perspective of China’s cotton consumption, however, the post-quota outlook is extremely bullish, with the potential to exceed the growth in cotton offtake seen over the last two years.

Another factor that is likely to continue to boost China’s cotton consumption in 2004/05 is the strong growth in the domestic economy. After rising an estimated 9.1 percent in 2003, China’s GDP is forecast to rise another 8.3 percent in 2004, according to recent report by the Research Institute of the State Development and Reform Commission. With domestic consumer spending expected to continue to expand at a rapid pace next year, increased domestic apparel offtake will also be a key driver in China’s overall cotton consumption.

Continued growth in domestic apparel offtake in 2004 and the expected sharp increase in cotton textile and apparel product exports to Europe and North America beginning in January 2005 will drive China’s cotton consumption to new records—though this will come at the expense of cotton consumption elsewhere in the world as China pushes out other less competitive suppliers. Extrapolating from the huge boost in cotton consumption by China since the Stage 3 quotas were removed (11.7 percent in 2001/02, 12.4 percent in 2002/03, and about 3 percent in 2003/04 as high cotton prices slowed growth somewhat), 10 percent growth in cotton consumption appears to be a reasonable estimate for 2004/05. A more pessimistic outlook on China’s ability to rapidly expand textile output would suggest slightly lower, though still strong, growth in the area of 5 percent. However, as the number of cotton products coming off in the final stage is so great, a convincing case can also be made that consumption growth could reach as high as 15 percent, at least in the initial year after the removal of all remaining quotas. All three of these growth scenarios assume no unforeseen events such as a return of SARS or some other unexpected economic, social or political crisis for China.

Chart 5--Range of Projected Increases in Cotton Consumption in 2004/05
The most conservative growth estimate of 5 percent (to 32.6 million bales) is based on China’s textile industry struggling to continue the rapid increases in output of the last two years, particularly as profits are reportedly few and far between. It also is based on the possibility that much of the trade gains turn out to be direct shipments of what were once transshipments. But, if China can continue to rapidly expand textile production and shipments in order to quickly capture as much market share as possible in the newly liberalized markets, China’s cotton consumption in 2004/05 could conceivably increase as much as 15 percent (to roughly 35.7 million bales). A moderate (relatively speaking, of course) scenario would be 10-percent growth or approximately 34 million bales. Note that the 10-percent growth scenario would mean an increase of about 3.1 million bales—very nearly an exact repetition of the increase seen in 2002/03.

The extent to which China’s cotton offtake could reach 15 percent growth rather than 5 or 10 percent rests on a number of factors, such as the domestic availability of cotton, the domestic cotton price relative to polyester staple, that foreign governments do not impose new restrictions on China’s cotton product export trade, that China’s textile and apparel producers effectively compete with other major producers such as Pakistan, India, and Turkey among others, and finally, that there is no sustained shortage of manufacturing inputs—most particularly that China can increase supplies of electricity and water for its rapidly growing industrial sector.
Factors Affecting the China Balance Sheet in 2004/05

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Managing Director, Cotton Economics
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Outlook for Production and Use

- Examine cotton production and consumption outlook for 2004/05
  - Production
    - Establish high, low, moderate area, yield and resulting production estimates
  - Consumption
    - Methodology and sensitivity
    - Establish high, low, moderate estimates
How Will China’s Farmers React?

- How responsive will farmers be to the high cotton prices?
  - Strong area response (+22%) to higher prices (+38%) last year
- Competing crop prices, especially in North China Plain and Yangtze River Valley?
- Availability of seeds and other inputs?
Coming Off of a Record Expansion in Area in 2003/04

Record High Growth in 2003

Gov Policy

Bollworms, Floods
Sown Area Remains Well Below Historical High
Cotton and Competing Crop Wholesale Market Prices

![Bar chart comparing cotton and competing crops' wholesale market prices for Jan '04 vs Jan '03 and CY '03 vs CY '02.](Image)
Intention Surveys Show Strong Growth in Area in 2004/05

- Shandong Province:
  - Price Bureau +19.5%
  - Ag Bureau +18.7%
- Jiangxi Province: +15-20%
- Henan Province: +10%
- Sichuan Province: +70%
- Xinjiang PCC Plan: -1.4%
Xinjiang: Area Sown to Cotton

Million Hectares

Non-PCC
PCC

1989 1991 1993 1995 1997 1999 2001 2003
82-85% of Change in Xinjiang Area in 2002 & 2003 by Non-PCC Farms
Key Points for 2004/05 Forecast

- Assume Xinjiang PCC area remains at 2003 level
  - Non-PCC area follows inland trend
- Inputs on balance will meet demand
  - Shandong: Ag Bureau says 90% of expected total seed demand will be met (if true, will hold province’s area growth to about 10 percent).
- In general, area expands more in regions with less weather-related yield damage last year
# Sown Area Scenarios (1,000 Ha)

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<tr>
<th>Region</th>
<th>Low -Grw th</th>
<th>Moderate-Grw th</th>
<th>High-Grw th</th>
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Yield Scenarios (Kilograms/Ha)

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## Output Scenarios (Mil 480-lb Bales)

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2004/05 Output Forecast Summary

- Area rises between 9 and 18 %
  - Middle est: +13.5 % to 5.8 mil hectares

- Yield rises between 12 and 23 %
  - Middle est: +13.4% to 1,082 kg/ha

- Output: +29 % to 28.8 mil bales
  - Current ICAC estimate is 28.48 mil bales
    using area up 10 % and “normal yields”
Estimating China’s Cotton Use

- Methodology used is similar to USDA
  - Monthly total yarn output
  - Apply cotton fiber share
- However, requires several key assumptions
  - Total consumption estimate quite sensitive to small errors in the main assumptions
Key Uncertainties & the Sensitivity of the Consumption Estimate

- 1% change in assumed annual total yarn output = 255,000 bales of cotton use
- 1% change in assumed cotton fiber share = 500,000 bales of cotton use
- 100,000 ton revision to final annual yarn output = 290,000 bales of cotton use
- A 1% error in all three assumptions would change use by well over 1 million bales
Past Revisions to Annual Total Yarn Output

1,000 Metric Tons

1991 1993 1995 1997 1999 2001 2003
Points to Remember....

- Revision to CY 2003 yarn output pending, will impact 2002/03 and 2003/04 estimates
  - Large upward revisions in the last few years as output has soared...a similar direction and magnitude this year?
- High cotton prices...not clear how much fiber share has been impacted...are there constraints to how much it can change?
Key Drivers of Use in 2004/05

- Continued growth in textile/apparel exports in 2004, though slower than in 2003
- But explosive growth in 2005 as last of ATC quotas removed
  - Anticipating change, yarn/fabric demand increases prior to January 1, 2005?
- Healthy domestic economic growth boosts domestic retail apparel sales
Rapid Expansion in Spindles (Year-End, in Millions)

40% growth since 2000
U.S. Imports of Textiles & Apparel from China by Liberalization Stage
U.S. Cotton Product Imports from China in 480-lb Bale Equivalents

- Stage 3
- Stage 4
- Other

- + 178%
- + 57%
Impact of Stage 4 Liberalization?

- Stage 3 saw 178+ percent growth in cotton product imports
  - Stage 3 dominated by made-ups
  - Stage 4 dominated by apparel
- China’s cotton use up 11.9% in 2002/03
- Suggests at least 10 % growth in 2004/05
Consumption Growth Forecasts:
Low 5%, Moderate 10%, High 15%