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Cotton and Wool Outlook: December 2023

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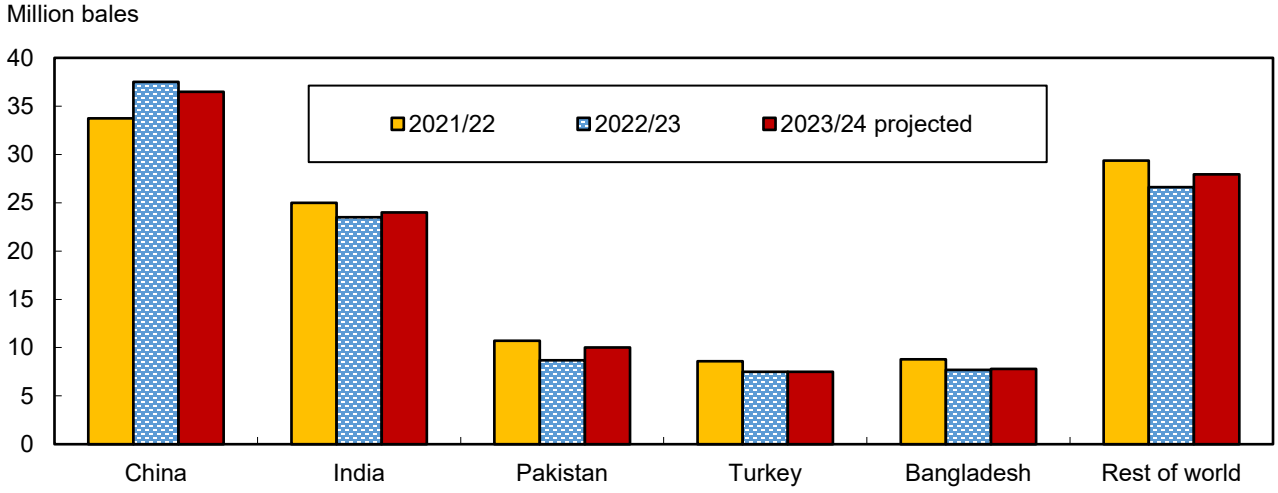
Global 2023/24 Cotton Mill Use To Outpace Production as China and India Lead the Way

The latest U.S. Department of Agriculture (USDA) estimates indicate that global cotton mill use in 2023/24 (August–July) will total 113.7 million bales, 2 percent above 2022/23. India, Pakistan, Bangladesh, and Vietnam are estimated to lead the increase, partially offset by China's decline. China and India remain the leading cotton-spinning countries, accounting for 32 percent and 21 percent, respectively, of total world cotton mill use (figure 1).

Global cotton production is forecast at 112.9 million bales in 2023/24, a 3-percent decrease from 2022/23. China, the United States, India, and Australia are primarily responsible for the global decline, offset slightly by Brazil and Pakistan. World cotton trade is forecast at 43.15 million bales this season, a 16.5-percent increase from 2022/23 as China's imports rise significantly. With world cotton mill use expected to exceed production in 2023/24, global ending stocks and the stocks-to-use ratio are projected to decline slightly.

Figure 1
Leading global cotton consumers



Note: 1 bale = 480 pounds.
Source: USDA, Economic Research Service using data from USDA, *World Agricultural Supply and Demand Estimates* reports.

Approved by USDA's World Agricultural Outlook Board

Domestic Outlook

U.S. Cotton Crop Forecast Lower in December

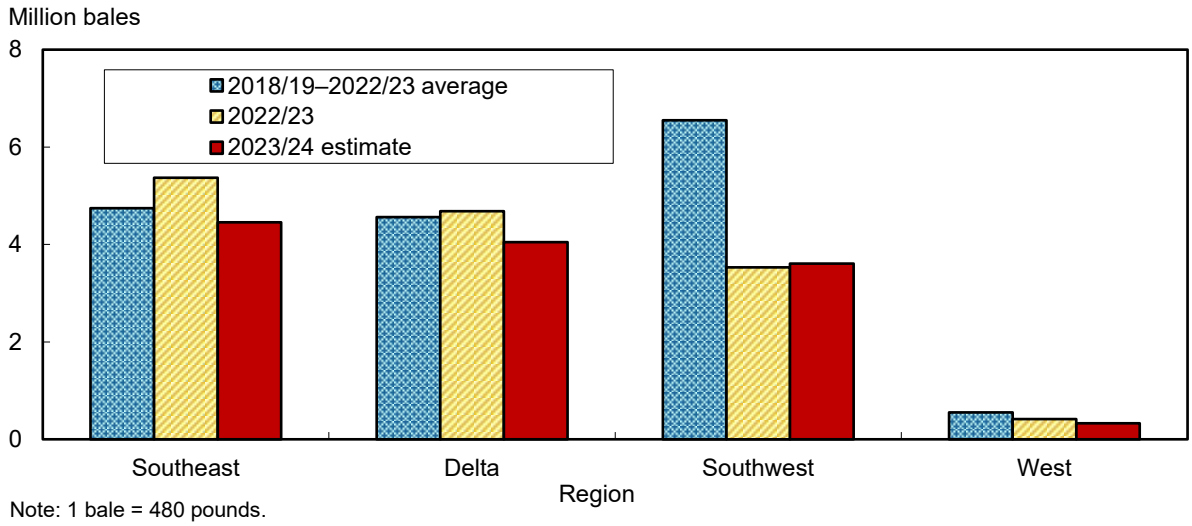
USDA's December *Crop Production* report forecasts 2023/24 U.S. cotton production at 12.8 million bales, 314,000 bales (2.4 percent) below last month's forecast and nearly 1.7 million bales (11.7 percent) below the 2022/23 crop. Harvested area in 2023/24 is estimated at 8.0 million acres, slightly above last season's 7.3 million acres—the lowest since a similar area was harvested in 1983/84.

Dry conditions for consecutive seasons in the Southwest region contributed to the relatively low harvested acreage. The implied U.S. abandonment rate is estimated at approximately 22 percent, compared with last season's 47 percent. The 2023/24 national yield of 765 pounds per harvested acre is also lower and similar to that of 2015/16. Upland cotton production is estimated at 12.4 million bales, while the extra-long staple (ELS) crop is forecast at 331,000 bales. For current production estimates by State, see table 10 published separately with this report.

Upland cotton production this season is forecast lower in three of the Cotton Belt regions while slightly higher in the Southwest (figure 2). In the Southeast, 2023/24 cotton production is projected at nearly 4.5 million bales—17 percent (915,000 bales) below 2022/23 and 6 percent lower than the 2018/19–2022/23 average. Cotton harvested area in 2023/24 is forecast below the 5-year average at 2.2 million acres. The Southeast yield is projected at 965 pounds per harvested acre this season, the third highest on record.

Cotton production in the Delta is estimated at approximately 4.1 million bales in 2023/24, 600,000 bales below the year before and below the 2018/19–2022/23 average. In 2023/24, cotton harvested area is forecast at 1.6 million acres—300,000 acres below the 5-year average—while the region's yield is projected at a record 1,211 pounds per harvested acre.

Figure 2
U.S. regional upland cotton production



Note: 1 bale = 480 pounds.
Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service, *Crop Production* reports.

In the Southwest, the 2023/24 upland crop is projected at 3.6 million bales, slightly above 2022/23's drought-reduced crop that was the smallest since 1992/93. Although 2023/24 planted area (6.1 million acres) was 30 percent below the previous year, harvested area is forecast considerably higher than 2022/23. Harvested area in the Southwest is projected at 3.95 million acres, an abandonment rate of 35 percent or about half last season's record of 73 percent. The 2023/24 Southwest upland yield is forecast at 439 pounds per harvested acre, well below the 5-year average of 696 pounds and the lowest since 2000/01.

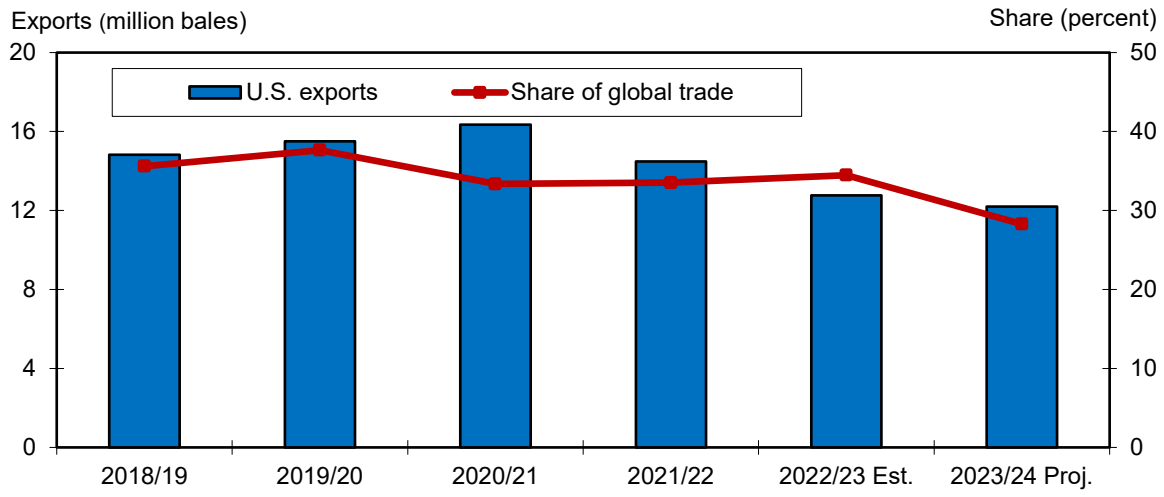
In the West, 2023/24 upland production is projected at only 330,000 bales, 40 percent below the 5-year average and the lowest production since 1932/33, as upland area continues to move to alternative crops. Harvested area (110,000 acres) is the lowest in over 100 years, while this season's yield (1,443 pounds per harvested acre) is forecast above the 5-year average. The ELS crop—grown mainly in the West—is projected at 331,000 bales in 2023/24, below last season's 470,000 bales but similar to the 2021/22 crop. Although harvested area is estimated at the second lowest since 2009/10, the ELS yield (1,126 pounds per harvested acre) is forecast at its lowest since 2000/01.

U.S. Cotton Demand and Stocks Estimates Revised

U.S. cotton demand for 2023/24 is projected at 14.1 million bales in December, 5 percent (716,000 bales) below 2022/23 and the lowest level since 2015/16. U.S. cotton exports account for the largest share of demand and are forecast at 12.2 million bales in 2023/24. U.S. mill use is expected to account for an additional 1.9 million bales this season—the lowest in over a century. For a historical perspective on U.S. cotton mill use, see the Highlight section in this report.

Despite a higher world trade projection this season and strong foreign import demand—particularly from China—U.S. cotton export prospects are constrained as supplies are forecast to be their lowest in 8 years. Based on the December projections, the 2023/24 U.S. share of global trade is forecast at 28 percent—6 percentage points below the previous 3-year average and the lowest since 2015/16 (figure 3).

Figure 3
U.S. cotton exports and share of global trade



Note: 1 bale = 480 pounds.
Source: USDA, Economic Research Service using data from USDA, *World Agricultural Supply and Demand Estimates* reports.

With the December decline in the U.S. cotton production estimate larger than the decrease in the cotton demand projection, 2023/24 U.S. ending stocks are forecast 100,000 bales lower this month, at 3.1 million bales. U.S. cotton stocks are nearly 1.2 million bales below 2022/23 and the lowest in 7 years. The stocks-to-use ratio is forecast at 22 percent at the end of 2023/24, compared with 29 percent in 2022/23, and the lowest in 3 years. Based on the U.S. and world cotton supply and demand estimates and recent prices, the 2023/24 average U.S. upland cotton farm price is forecast at 77 cents per pound, compared with the final 2022/23 price of 84.8 cents per pound and 2021/22's record of 91.4 cents.

International Outlook

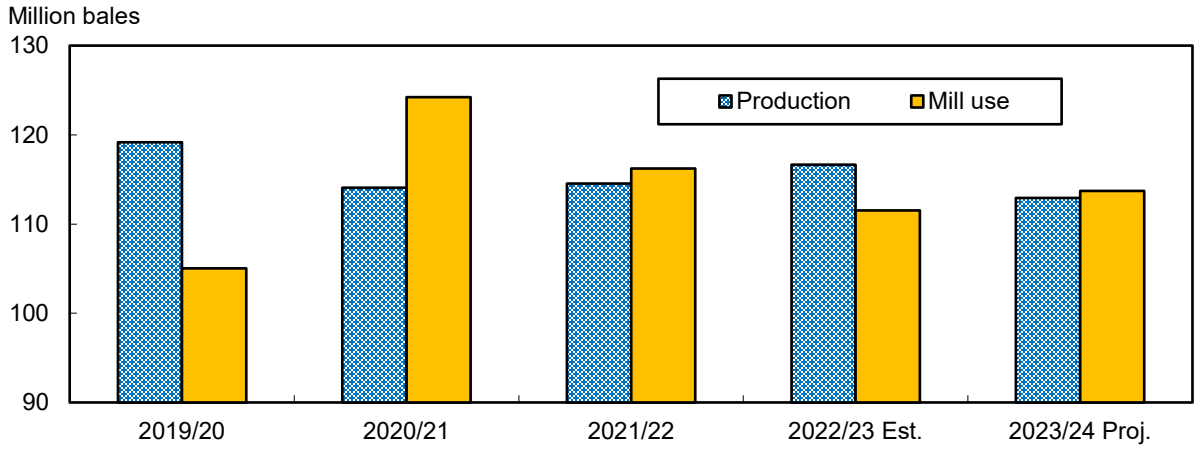
World 2023/24 Cotton Production Forecast at 7-Year Low

Global cotton production in 2023/24 is projected at 112.9 million bales, 500,000 bales below the November estimate and a 3.2-percent reduction from last season's 116.6 million bales (figure 4). The December 2023/24 production estimate is the lowest since 2016/17 and includes smaller crops for the United States, Turkey, and Mexico, offset slightly by an increase for Pakistan. World cotton harvested area is forecast at 32.0 million hectares (79.1 million acres) in 2023/24, less than 1 percent above last season. The global cotton yield in 2023/24 is projected at 768 kilograms (kg) per hectare (685 pounds per acre), compared with the 3-year average of 785 kg per hectare (700 pounds per acre).

Cotton production prospects for the major producing countries this season are mixed compared with 2022/23. Production in China—the leading cotton producer—is forecast at 27.0 million bales, 12 percent (3.7 million bales) lower than 2022/23, as area and yield are below last season. Growing conditions were generally favorable after an early-season setback that is expected to prevent the national yield from reaching 2022/23's record of 2,122 kg per hectare. For 2023/24, a yield of 2,027 kg per hectare is forecast, with harvested area estimated at 2.9 million hectares. China is expected to account for 24 percent of global production this season.

For India, 2023/24 cotton production is projected at 25.0 million bales, nearly 5 percent (1.3 million bales) below last season, with declines in area and yield. Harvested area is forecast at 12.7 million hectares (down 2 percent) as alternative crops were favored over cotton. India's yield is forecast at 429 kg per hectare, below last year and below the 3-year average. India is expected to account for 22 percent of world production this season, similar to 2022/23. Cotton production in Pakistan is expected to rebound to 6.7 million bales in 2023/24 after last season's floods that reduced harvested area and yield considerably. Harvested area in 2023/24 is projected at 2.4 million hectares while the national yield is forecast at 608 kg per hectare, 16 percent above the 3-year average. Pakistan is forecast to account for 6 percent of the global crop in 2023/24.

Figure 4
Global cotton production and mill use



Note: 1 bale = 480 pounds.
Source: USDA, Economic Research Service based on USDA, *World Agricultural Supply and Demand Estimates* reports.

For the Southern Hemisphere, 2023/24 cotton production is forecast higher for Brazil and lower for Australia compared with last year. Cotton production in Brazil is estimated at a record 14.56 million bales in 2023/24, a 24-percent (2.8 million bale) increase as a record yield of 1,910 kg per hectare is projected. With a 12-percent reduction in the U.S. cotton crop this season, Brazil ranks as the third largest producer in 2023/24—behind China and India. Brazil is expected to account for 13 percent of the global crop.

For Australia, 2023/24 cotton production is forecast at 5.1 million bales, a decrease of 700,000 bales (12 percent) from the year before. Projected harvested area for 2023/24 is forecast to decline 28 percent to 470,000 hectares. With a large percentage of cotton area under irrigation in 2023/24—as dryland plantings are forecast to be considerably lower—Australia's national yield is forecast at 2,388 kg per hectare, the highest since 2014/15.

Global Cotton Mill Use Projected To Rise in 2023/24

World cotton mill use in 2023/24 is forecast to increase 2.0 percent from the year before to 113.7 million bales. However, global cotton use remains the third lowest in 8 years as world economic uncertainties reduce mill operating rates—limiting yarn production—until downstream demand expands. The forecast for cotton mill use in 2023/24 is higher than last year for most of the leading cotton-spinning countries—India, Pakistan, Bangladesh, and Vietnam. The exceptions are China, where a relatively small decrease is forecast, and Turkey, where cotton mill use is projected at the 2022/23 level. These top six countries are expected to account for more than 80 percent of total global cotton mill use this season.

For China, 2023/24 cotton mill use is forecast at 36.5 million bales, about 3 percent (1.0 million bales) below the previous year in which mill use rebounded a remarkable 11 percent. Despite the year-to-year reduction, China remains the leading cotton spinner in 2023/24, contributing 32 percent of the global total. For India—the second largest cotton spinner—2023/24 mill use is forecast at 24.0 million bales or 2 percent (500,000 bales) above the previous year. India is expected to account for 21 percent of global mill use this season.

Cotton mill use is forecast to increase in Pakistan, Bangladesh, and Vietnam in 2023/24 and remain flat in Turkey. These four countries account for a combined 28 percent of world mill use in 2023/24, up slightly from the previous year. In Pakistan, 2023/24 cotton mill use is projected to bounce back considerably (15 percent) after last season's flood-damaged crop limited supplies for local mills. Cotton mill use in Pakistan is forecast to reach 10 million bales this season, 1.3 million bales higher than 2022/23 but below most years during the last two decades. Mill use in Bangladesh is forecast at 7.8 million bales in 2023/24, up slightly (100,000 bales) from the year before but 1.0 million bales below the 2021/22 record. For Vietnam, mill use is projected to rise nearly 4 percent (250,000 bales) to 6.7 million bales. Mill use in Turkey is forecast unchanged at 7.5 million bales in 2023/24, but nearly 13 percent below the 2021/22 record of 8.6 million bales.

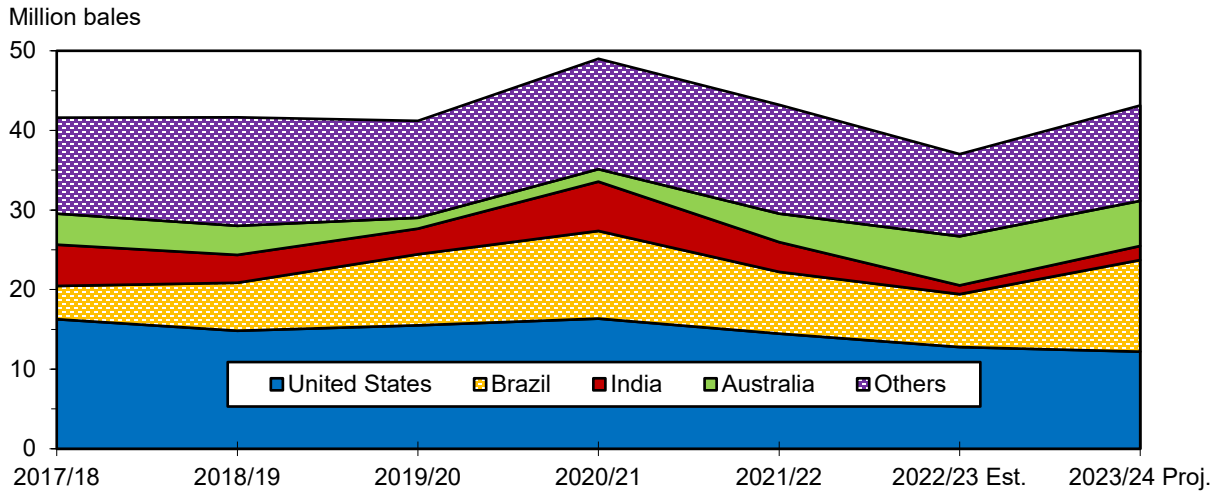
World Cotton Trade Higher; Stocks Slightly Lower in 2023/24

Global cotton trade in 2023/24 is projected to increase this season, largely supported by an increased import projection for China as it rotates and replenishes cotton stocks in the national reserve. World imports are forecast at 43.15 million bales in 2023/24, the highest in 3 years. China, Bangladesh, and Vietnam are expected to be the leading cotton importers in 2023/24. Imports by China are projected at 11.0 million bales, or 25 percent of the global total. Bangladesh is forecast to import 7.5 million bales this season, 7 percent (500,000 bales) higher

than in 2022/23, while Vietnam is projected to import 6.7 million bales, a growth of more than 200,000 bales or 3.5 percent.

As with imports, global cotton exports are forecast to rise in 2023/24, with various suppliers expecting mixed results compared with 2022/23 (figure 5). U.S. cotton exports—somewhat limited by this season's lower crop—are forecast to decrease 570,000 bales (4.5 percent) to 12.2 million bales. Similarly, Australia's lower production forecast for 2023/24 is projected to reduce exports more than 8 percent to about 5.7 million bales, but still the second highest since 2012/13. For Brazil, cotton exports are expected to benefit from a record crop, with shipments forecast to increase 4.8 million bales to a record 11.5 million bales in 2023/24. Brazil's share of 2023/24 global cotton trade is forecast near 27 percent, slightly below the U.S. share this season. For India, exports in 2023/24 are projected at 1.8 million bales, 700,000 bales above last season but considerably below each of the previous 15 years.

Figure 5
Leading global cotton exporters



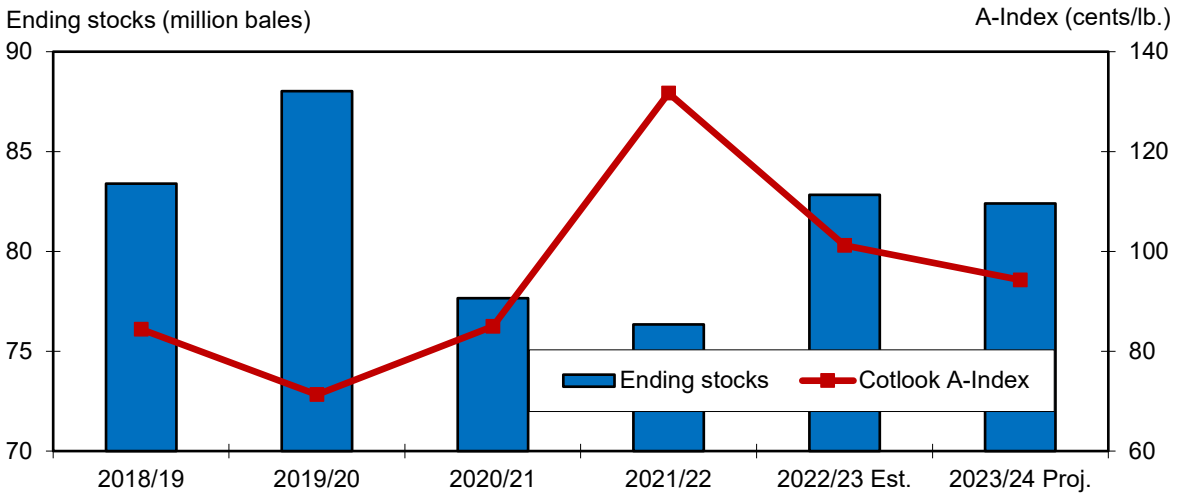
Note: 1 bale = 480 pounds
Source: USDA, Economic Research Service based on USDA, *World Agricultural Supply and Demand Estimates* reports.

Based on the latest cotton supply and demand projections, global ending stocks are forecast at 82.4 million bales in 2023/24, compared with 82.8 million bales last season (figure 6). World cotton ending stocks are forecast to decline in several countries, but rising stocks in other countries keep global stocks nearly unchanged. For the major producing countries, 2023/24 ending stocks are expected to increase for China, India, and Pakistan, with declines forecast for the United States and Brazil.

Stocks in China are projected to increase slightly—about 4 percent—to 38.8 million bales, accounting for 47 percent of the global total in 2023/24. In India, cotton stocks are also forecast to rise 4 percent to 12.3 million bales, a record. Cotton stocks are expected to return to more normal levels in Pakistan in 2023/24 with the rebound in production. Stocks in Pakistan are forecast at nearly 2.2 million bales this season, up from 1.5 million bales in 2022/23. In contrast, stocks in the United States and Brazil are expected to decline this season. U.S. stocks are forecast 27 percent lower at 3.1 million bales and the lowest since 2016/17. Cotton stocks in Brazil are projected at 5.5 million bales in 2023/24, 4 percent lower year-over-year. Despite world cotton stocks and the stocks-to-use ratio—72 percent—nearly unchanged in 2023/24,

global economic uncertainty about cotton demand is expected to keep the 2023/24 world price (Cotlook A-Index) below the 2022/23 average of 101 cents per pound.

Figure 6
Global cotton stocks and prices



Note: 1 bale = 480 pounds.
Source: USDA, Economic Research Service using data from Cotlook and USDA, Interagency Commodity Estimates Committee.

Highlight

U.S. 2023/24 Cotton Mill Use Estimate Lowest in More Than a Century

USDA's December 2023 U.S. cotton mill use estimate for 2023/24 was reduced to 1.9 million bales, the smallest in nearly 140 years. If realized, cotton use by domestic textile mills would reach its lowest level since 1884/85 when U.S. mill use was estimated at approximately 1.7 million bales (figure 7).

U.S. cotton mill use has been mostly on a downward trend since the early 1940s when cotton use peaked during World War II. Synthetic fibers were soon developed and became a substitute for some cotton mill demand. Synthetics continued to expand and further reduced cotton mill use through the early 1980s.

The downward trend was dramatically reversed for a period, however, as U.S. industry efforts promoted the use of cotton. Programs, such as the Caribbean Basin Initiative (CBI) and later the North American Free Trade Agreement (NAFTA), fostered U.S. cotton yarn and fabric production. These semi-finished products were exported to the CBI and NAFTA region for final apparel construction before returning to the United States for retail sale. As a result, U.S. cotton mill use rose considerably.

Cotton mill use peaked once again in the United States in the mid-1990s before the World Trade Organization (WTO) Agreement on Textiles and Clothing began phasing out quotas on developed country textile and apparel product imports. By the early 2000s, cotton mill use in several countries—particularly China—expanded to take advantage of the phased-out quotas on cotton products exported to the United States. Although U.S. raw cotton exports benefited from increased foreign mill demand, U.S. cotton textile mill use weakened considerably. The downward trend has continued, leading to the historic 2023/24 U.S. cotton mill use projection.

Figure 7
U.S. cotton mill use estimates, 1873/74-2023/24, projected

Note: 1 bale = 480 pounds. Original running bale data for 1873/74-1959/60 converted to statistical bales using a 1.03 factor.

Source: USDA, Economic Research Service using data from USDA *Statistics on Cotton* and USDA, *World Agricultural Supply and Demand Estimates* reports.

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