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Cotton and Wool

OUTLOOK & SITUATION

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Summary

U.S. cotton supplies will tighten relative to domestic and world markets in the new season that began August 1. An expected 7-percent gain in U.S. mill use—the largest since 1975—a slight rise in exports, and a forecast 4.2-million-bale drop in production are expected to lower U.S. ending stocks to 4.6 million bales. Ending stocks may fall to 41 percent of use in 1983/84, sharply below last season's 74 percent, but still above the 33-percent average recorded during the 1977-82 marketing years.

U.S. consumer demand for textiles is strengthening as real disposable incomes and population grow. Cotton's share of total fiber mill use averaged about 24.5 percent during January-June 1983, compared with 25.5 percent in 1982. Mill use is expected to climb to about 5.9 million bales this season, marking the first time since 1965 that consumption will rise significantly 2 years in a row.

Expanding production in almost every major foreign exporting nation in 1983/84 is expected to moderate the increased demand for U.S. cotton exports. Even so, U.S. shipments are expected to advance slightly to 5.3 million bales on the strength of economic recovery in Western Europe and Japan. Exports during July ran at a surprisingly high 6.8 million bales on a seasonally-adjusted annual basis, and shipments in early August appeared to maintain that pace. Low stocks in competing exporting nations and expanding world consumption explain the strong showing this summer and will also be a factor this fall.

The August Crop Production report placed the 1983 U.S. harvest at 7.8 million bales, 4.2 million less than in 1982. Since crop conditions were surveyed in early August, moisture levels have continued to decline in the Delta and in the Texas and Oklahoma High Plains.

Temperatures have been cool in parts of the Far West, but high elsewhere.

The August crop report indicated a national average yield of 503 pounds per acre, 1 pound above the average of the previous 5 years, but a low yield considering that nearly 7 million acres of cotton base have been idled under Government programs. Weather conditions since August 1 may have caused the yield potential in most areas outside the Far West to erode further, while crop conditions have probably improved in the San Joaquin Valley.

Even with carryin stocks on August 1 of about 7.9 million bales, the total supply in 1983/84 will be around 2.9 million less than last year. Supplies of longer staple cotton from California and Mississippi probably will be more abundant than previously thought. However, because abandonment in Texas is expected to be high for the second straight year, supplies of medium-to-short staples (1 to 1-1/32 inches) are likely to be less than desired. There also may be shortages of white cotton in grades strict low middling or better.

The outcome of USDA's renewed effort during August 8-24 to solicit bids on loan cotton for use as PIK entitlements is not yet known. However, it is likely that there was not enough uncommitted cotton under loan in August to meet PIK program needs of about 1.3 million bales. Therefore, a modified harvest-for-PIK program is still a possibility.

U.S. spot prices for SLM 1-1/16 inches ranged between 68 and 73 cents a pound between June and mid-August. December futures ranged between 77 and 82 cents during the same period. Harvest-for-PIK, expanding mill use, and concern about new crop quality have maintained prices above loan rates plus carrying costs despite large ending stocks. The Outlook "A" index rose from 86 cents in June to above 90 cents in mid-August due to reduced supplies in the Southern Hemisphere and the Soviet Union. U.S. prices, c.i.f. Northern Europe, remain near the "A" index, a situation that will probably continue until new crops are harvested overseas.

The 1983/84 world outlook points to expanded foreign production, consumption, and trade. World beginning

stocks are estimated at 28 million bales, nearly identical to a year ago. Production is expected to fall to 66.3 million bales, down from 67.6 in 1982. However, total output excluding the United States—the only major producer cutting back—is expected to rise 2.8 million bales to 58.5 million.

World mill use is expected to rise to 69.4 million bales from 67.3 million last year. The largest foreign increase is expected in China, where consumption could grow by 700,000 bales. World trade may expand to 18.5 million bales from 18 million in 1982/83 as foreign countries try to accommodate increased consumption without reducing ending stocks. The 1983/84 world carryover is forecast at 24.5 million bales, down 3.5 million from the previous year.

The extra-long staple (ELS) outlook has been altered by stronger demand and legislation allowing the Commodity Credit Corporation to sell Government-owned ELS stocks at prices below current loan rates. ELS stocks are now expected to fall below 90,000 bales next July 31. The August crop report placed 1983 production at 78,000 bales; mill use is forecast to rise by 34 percent to 75,000 bales, and exports may reach 15,000.

Mill consumption of raw wool during April-June 1983 was the largest in 10 years, mirroring increased total fiber consumption plus normal second-quarter increases in apparel production. Nevertheless, the weighted average farm price for 1983 is expected to range between 68 and 72 cents per pound, greasy, down approximately 2 cents from prices expected 3 months ago. Raw wool imports are dampening domestic prices. U.S. mill use in 1983 is now estimated at 130 million pounds, while production is estimated at 53 million.

This issue of the *Cotton and Wool Outlook and Situation* contains two special articles, "Measuring the U.S. Cotton Content of Textile Imports," and "World Outlook for Apparel Wool: 1983/84." Approximately 30 percent of U.S. cotton textile imports in 1982 originated as U.S. cotton and cotton textile exports, according to the results of the first article. The second article explains the major factors affecting world wool prices and the relationship between U.S. and Australian wool prices.

Cotton and Wool Situation

TEXTILES AND THE ECONOMY

Economic indicators this summer showed the U.S. economy had definitely recovered from the 1981-82 recession. However, high real interest rates and the strength of the dollar indicate a somewhat weaker and less balanced recovery than normal. Real gross national product (GNP) in the second quarter rose 9.2 percent (\$33.3 billion) over the first quarter. This annual growth rate was the strongest since the economy expanded at a 9.0-percent annual rate in first-quarter 1981. The principal factors in this strong recovery were higher-than-expected consumer spending and a slower business inventory

reduction. Personal consumption expenditures (66 percent of GNP) increased \$23.2 billion, of which durable goods sales were 45 percent. This strong consumer spending resulted in only 4.0 percent of disposable personal income being saved in the second quarter, the lowest rate since the third quarter of 1950. Given the historically low savings rate of the second quarter, significant further declines in the savings rate are not likely. Therefore, future increases in consumer spending are expected to come primarily from the expanded personal income generated by the mild recovery in the nonconsumer sectors. Gross private domestic investment (14 percent of GNP) increased \$20.6 billion, most of which came from slower inventory liquidation.

Other economic data also reflect the second quarter strength and the outlook for moderate economic growth in the second half of 1983. The index of industrial production increased at an annual rate of 18 percent, compared with 10 percent in the first quarter. The capacity utilization rate of manufacturing in the second quarter was 73.8 percent, the highest since first-quarter 1982. The index of leading indicators rose 4.4 percent over the first quarter which, in turn, was 5.8 percent above the previous quarter. The coincident index, a companion index that measures current activity, advanced 2.5 percent—more than twice the first quarter.

Strong second quarter retail sales reflected consumer confidence in the business climate and anticipated additional income from the July 1 tax cut. Retail sales of nondurable goods, seasonally adjusted, in April and May were 2.6 percent above the average of the first quarter which, in turn, was 0.3 percent more than the fourth quarter. The nondurable retail inventory/sales ratio for May was the lowest since June 1981. At the other end of the marketing chain, manufacturers of nondurables in May had the lowest inventories in 3 years and the highest sales in 2 years. Personal nondurable consumption expenditures in the second quarter increased at a record 5.9 percent.

Nondurable manufacturing activity in general, and textile mill production in particular, in the second quarter rose to a level not equaled in 1-1/2 years. Second quarter capacity utilization in the textile industry was the highest since first-quarter 1980. While below late 1982 levels, unemployment during the first 7 months of 1983 has nonetheless averaged from 10 to 11 percent in textile mills and 11 to 16 percent in apparel manufacturing.

Mill consumption of all fibers in the second quarter was 3.09 million pounds, 11 percent more than the first quarter. Cotton mill use, slightly above 0.7 billion

pounds, increased almost 4 percent. In contrast, noncellulosic fibers increased 14 percent. This second-quarter gain largely resulted from a sharp rise in shipments to the carpet industry.

COTTON SITUATION

U.S. Outlook for 1983/84

Supply Less Than Expected

With beginning stocks of 7.9 million bales and production estimated as of August 1 at 7.8 million, the total cotton supply in 1983/84 could be about 15.8 million bales, or 2.9 million less than in 1982 (table 18). Earlier in the season, production and stocks were expected to be higher, but adverse weather has cut yields, and a surge in exports during July tightened supplies. The lower production forecast, combined with a potential shortage of high grade upland cotton, helped support cotton spot and futures prices in late July and August.

Planted area in 1983 is estimated at 8.3 million acres, and harvested acreage is currently set at about 7.45 million, representing a nation-wide abandonment rate of about 10 percent. The expected national average yield of 503 pounds would about equal the average during the past 5 years (table 1). However, this is far below the 525 to 550 pounds that might have been expected on such reduced acreage had weather been average.

The Southeast is expected to produce about 534,000 bales, about 7 percent of the U.S. total. Abandonment in that region is expected to be only about 1.5 percent, which is less than average. Yields are placed at 559

Table 1—Cotton: Acreage, production, and yield per acre on harvested acreage

Year beginning August 1	Planted		Harvested		Production		Yield	
	1,000 acres	Percent of total	1,000 acres	Percent of total	1,000 bales ¹	Percent of total	Pounds ²	Pounds ³
West⁴								
1981	2,318	16.2	2,276	16.4	5,287	33.8	1,115	1,029
1982	1,977	17.4	1,955	20.1	4,323	36.1	1,073	
1983 ⁸	1,370	16.5	1,346	18.1	2,781	35.6	992	
Southwest⁵								
1981	8,128	56.7	7,858	56.8	6,103	39.0	373	318
1982	6,300	55.6	4,769	49.0	2,961	24.8	298	
1983 ⁸	4,650	56.0	3,870	51.9	2,405	30.8	298	
Delta⁶								
1981	3,107	21.7	2,943	21.3	3,394	21.7	554	577
1982	2,429	21.4	2,381	24.5	3,707	31.0	747	
1983 ⁸	1,810	21.8	1,778	23.9	2,090	26.8	564	
Southeast⁷								
1981	777	5.4	764	5.5	862	5.5	541	541
1982	634	5.6	623	6.4	972	8.1	749	
1983 ⁸	469	5.7	458	6.1	534	6.8	559	
U.S.								
1981	14,330	100.0	13,841	100.0	15,646	100.0	543	517
1982	11,340	100.0	9,728	100.0	11,963	100.0	590	
1983 ⁸	8,299	100.0	7,451	100.0	7,810	100.0	503	

¹480-pound bales. ²Actual. ³5-year centered average. ⁴California, Arizona, New Mexico, and Nevada. ⁵Texas and Oklahoma. ⁶Missouri, Arkansas, Tennessee, Mississippi, Louisiana, Illinois, and Kentucky. ⁷Virginia, N. Carolina, S. Carolina, Georgia, Florida, and Alabama. ⁸Crop Reporting Board Report, August 11, 1983.

pounds, about 6 percent above the 5-year average for the region, even though cool and wet weather delayed planting and retarded plant growth until mid-July. Hot weather during July and August has improved growing conditions.

The Delta is expected to produce about 2.1 million bales, or about 27 percent of the national total. Abandonment in the Delta is expected to be less than 3 percent, while it is normally above 4 percent. The positive effects on yields of reduced plantings have been largely offset by weather, and average yields of 564 pounds, only 2 pounds above the 5-year average, are expected. By August 1, cotton in the Delta was 2 to 3 weeks behind last year's rate of development.

About 2.4 million bales are expected from the Southwest this year, about 31 percent of the Nation's production. Texas is expected to regain its position as the largest cotton-producing State. Weather in the Southwest has been more damaging than in any other region. The average rate of abandonment is expected to be about 15 percent, compared with 12.5 percent on average, and yields are expected to be about 298 pounds per acre, nearly 6 percent below the 5-year average. The Southwest experienced cool, wet weather early in the season, which delayed planting and crop development. Since June, drought conditions have prevailed in some areas of the High Plains, and the crop in Texas is still at risk.

The Far West is expected to produce about 2.8 million bales in 1983/84, about 36 percent of the national total. Abandonment, normally very low, will be less than 1 percent, and yields are expected to be about 1 percent above average at 992 pounds. Despite early season delays, the crop has been prospering under favorable conditions since June, and at the start of August, development averaged only 1 week behind last year's pace.

The August production forecasts from USDA are generally reliable. In the past 10 years, the August forecast has been above the final estimate five times and below it five times. The 90-percent confidence interval for this year's estimate is 6.61 to 9.01 million bales. Over the last 10 years, the average difference between the August forecast and final production has been 886,000 bales. The following table shows the record for the August and September forecasts:

History of August and September forecast

Crop year	August production forecast	September production forecast	Actual production	Difference	
				August	September
1,000 480-lb. bales					
1973	12,740	12,939	12,974	-234	-35
1974	12,758	13,200	11,541	1,217	1,659
1975	9,416	9,309	8,302	1,114	1,007
1976	10,730	10,375	10,581	149	-206
1977	13,535	13,201	14,389	-854	-1,188
1978	11,820	11,155	10,856	964	299
1979	13,710	14,245	14,629	-919	-384
1980	12,812	11,689	11,122	1,690	567
1981	14,789	15,507	15,646	-857	-139
1982	11,143	11,029	11,963	-820	-934
1983	7,810				

Total Supplies Lowest Since 1980/81

While the 1983/84 carryin of 7.9 million bales is the highest since the mid-1960's, the total supply available each month beginning in October will likely be less than during each of the 2 previous crop years. The following table presents estimated beginning-of-the month stocks through the first half of 1983/84:

	Beginning of month stocks				
	1979/ 80	1980/ 81	1981/ 82	1982/ 83	1983/84 forecast
	1,000 480-lb. bales				
Aug. 1	3,958	3,000	2,668	6,632	7,900
Sept. 1	3,468	2,694	2,395	6,298	7,300
Oct. 1	2,908	2,512	3,041	6,617	6,900
Nov. 1	5,868	5,070	6,193	9,774	8,000
Dec. 1	9,921	7,471	10,014	12,598	9,900
Jan. 1	11,365	8,543	12,279	13,624	10,600
Feb. 1	11,143	8,172	12,545	13,469	10,300

The forecast of beginning stocks each month during 1983/84 is based on seasonal mill use and export patterns and average monthly ginning rates, delayed 1 week to account for this year's late crop. Early season export forecasts have been increased by 10 percent. While the U.S. supply will begin large, it will probably peak at about 10.6 million bales in late December, compared with 13.6 million and 12.3 million in the 2 previous crop years. With use in 1983/84 expected to run about 500,000 bales ahead of the total for 1982/83, entry of 1983-crop cotton into the Government loan program will probably proceed at a slower pace than in 1982. The larger-than-usual early season availability may encourage a larger proportion of total exports to move during the first 3 months of the season than would normally be the case.

Shortages of Medium Staples and Higher Grades Possible

Supplies of short staple (31/32 inch or less) and long staple (1-1/8 inches or longer) cotton should be plentiful during the 1983/84 season. However, supplies of

Table 2.—Estimated 1983/84 supply, and previous year's consumption, by staple length

Crop year	31/32 inch or less	1 inch to 1-1/32 inches	1-1/16 inches to 1-3/32 inches	1-1/8 inches or longer	Total
<i>Million 480-lb bales</i>					
<i>Total consumption</i>					
1978	1.8	2.8	6.8	1.2	12.5
1979	2.4	3.7	6.6	3.1	15.7
1980	1.7	2.3	5.4	2.4	11.8
1981	1.7	2.2	5.8	2.1	11.8
1982 ¹	1.1	2.0	5.5	2.1	10.7
<i>Estimated supply</i>					
1983 ²					
Beginning stocks	2.0	.5	2.3	3.1	7.9
Production	1.0	1.3	3.7	1.8	7.7
Total supply	3.0	1.8	5.9	4.9	15.6

¹Preliminary. ²Estimated.

medium-short (1 inch and 1-1/32 inches) and medium (1-1/16 and 1-3/32 inches) staple cotton may be tight. Supplies of middling and strict low middling white cotton may also be in short supply.

The 1983/84 production by staple length and grade was estimated using average State production data on crop quality for the past 5 years, and the August crop forecast. No attempt was made to adjust for the lateness of this year's crop. The 1982/83 carryover by staple length was derived by subtracting mill use and exports by staple length from the 1982/83 supply. Data are not available to estimate the distribution of total use by grade. Therefore, the average distribution of carryover stocks by grade in 1980/81 and 1981/82 were used to estimate the distribution of current beginning stocks. Adjustments were made to account for the production decline in Texas in 1982/83.

Supplies of short and long-staple cotton will almost certainly be adequate in 1983/84 (table 2). The total offtake of cotton 1 inch or less has not exceeded 2.4 million bales in the last 5 years, but this year's supply should be greater than 3.3 million bales. Since 1978/79, the greatest level of mill use and exports of upland cotton 1-1/8 inches or longer occurred in 1979/80, when about 3.1 million bales were used. This season, the total supply in this category is expected to exceed 4.6 million bales.

The supplies of staple lengths between 1 inch and 1-3/32 inches may be the lowest in 6 years. About 2.1 million bales of medium-short staple cotton are expected to be available this season. In 4 of the past 5 years, more than this amount has been exported or used domestically. Likewise, little more than 5.9 million bales of medium staple cotton will probably be available in 1983/84. This is very near the amounts used in 1981/82 and less than the amounts used in 1978/79 and 1979/80.

The grade distribution of the 1983/84 cotton supply can not be compared with past total use by grade because those data are not available. Therefore, the distribution of supply by grade during the past 2 years, with an adjustment for the decline in Texas production, is used to evaluate the relative availability of various grades this year (table 3).

Table 3.—Estimated 1983/84 and previous year's supply, by grade

Crop year	White				All other grades
	Middling or better	Strict low middling plus	Low middling or low middling plus		
<i>Million 480-lb bales</i>					
1978	2.2	6.2	2.4		0.4
1979	3.8	6.1	2.1		.3
1980	3.3	4.2	1.6		.3
1981	3.3	4.6	1.9		.4
1982 ¹	2.5	5.2	2.9		.4
1983 ²					
Beginning stocks	.7	1.4	1.0		.2
Production	1.5	2.7	1.0		.1
Total	2.2	4.1	2.0		.3
<i>Light spotted</i>					
Crop year	Middling light spotted	Strict low light spotted	Low middling, spotted	All other grades	Total supply
<i>Million 480-lb bales</i>					
1978	1.2	2.5	0.8	0.5	16.2
1979	2.0	2.7	.7	.9	18.6
1980	.7	2.2	.9	1.0	14.2
1981	.8	3.7	2.3	1.3	18.3
1982 ¹	1.2	3.5	1.8	1.1	18.6
1983 ²					
Beginning stocks	.6	1.8	1.3	.9	7.9
Production	.5	1.1	.6	.2	7.7
Total	1.1	2.9	1.9	1.1	15.6

¹Preliminary. ²Estimated.

The availability of strict middling, middling plus, and middling could be the lowest since 1978/79. An estimated 600,000 bales of middling was in August 1 stocks, and about 1.4 million could be produced, based on the August production estimates.

The supply of strict low middling plus and strict low middling will probably be at a 6-year low. About 2.6 million bales are expected to be produced; however, there were probably less than 1.4 million bales of these grades in the August 1 stocks. Supplies of white cotton in grades lower than strict low middling will be about the same as in 3 of the last 5 years.

Supplies of light spotted and all other cotton should be adequate. Middling light spotted and better should be almost as plentiful as last year and should be greater than in 1980/81 and 1981/82. Supplies of strict low middling light spotted will probably be lower than the last 2 years, but will still be above the levels of 1978/79-1980/81. Supplies of low middling light spotted and all other grades will probably be about the same as last year.

Mill Use To Maintain Recent Pace

U.S. mill use of all cotton is expected to reach about 5.9 million bales in 1983/84, up from 5.5 million last season. Increases in disposable personal income are raising consumer demand for fiber products. Per capita domestic cotton consumption—mill use plus the cotton textile trade deficit—fell to a postwar low of 13.49 pounds in 1982, but rose to an annual rate of 15.30 pounds during the first 6 months of 1983. Cotton's share of the total domestic fiber market was about 23.5 to 24 percent during April-June. Despite the growth in textile imports and the decline in textile exports, cotton mill use reached a seasonally adjusted annual rate of about 5.9 million bales during June and July.

Table 4.—Cotton and manmade fibers: Daily rate of mill consumption on cotton-system spinning spindles, unadjusted and seasonally adjusted

Month	Upland cotton				Manmade staple							
	1981/82		1982/83 ¹		1981/82				1982/83 ¹			
	Unad-justed	Ad-justed	Unad-justed	Ad-justed	Rayon and acetate		Non-cellulosic ²		Rayon and acetate		Non-cellulosic ²	
	<i>Bales³</i>				<i>1,000 pounds</i>							
August	22,147	21,928	20,202	19,982	1,172	1,174	6,448	6,422	779	781	5,417	5,385
September	21,399	21,293	19,636	19,538	1,155	1,155	6,312	6,325	756	773	5,400	5,405
October	23,156	21,481	21,576	19,959	1,090	1,021	6,391	6,046	837	786	5,694	5,382
November	20,763	20,356	20,211	19,815	1,078	1,003	5,737	5,669	882	813	5,451	5,392
December	16,367	18,390	17,620	19,910	764	879	4,692	5,326	681	787	4,723	5,385
January	19,406	19,426	20,954	21,017	887	850	5,585	5,396	841	807	5,718	5,514
February	20,488	19,681	22,425	21,542	843	812	5,865	5,683	855	823	6,183	5,991
March	20,550	19,722	22,805	21,907	812	767	5,595	5,298	874	825	6,127	5,802
April	21,391	20,910	22,305	21,804	852	830	5,608	5,391	937	914	5,955	5,726
May	20,395	19,667	22,805	21,970	820	796	5,267	5,160	939	910	6,201	6,079
June	19,000	18,887	22,526	22,392	752	767	5,066	5,056	960	981	6,207	6,195
July	16,419	19,385			651	784	4,536	5,274	726	876	5,264	6,114

¹Preliminary. ²Includes nylon, acrylic and modacrylic, polyester, and other manmade fibers. ³480-pound net weight bales.

Compiled from reports of the Bureau of the Census.

Table 5.—Upland cotton and manmade staple fibers: Mill consumption on cotton-system spinning spindles

Year beginning August 1	Cotton	Manmade			Total fibers	Cotton's share of total
		Rayon and acetate	Non-cellulosic	Total		
		<i>1,000 pounds</i>				<i>Percent</i>
1982/83	NA	217,707	1,479,094	1,696,793	NA	NA
1982/83						
August	193,941	15,575	108,335	123,910	317,851	61.0
September	235,629	18,909	135,000	153,909	389,538	60.5
October	207,127	16,747	113,879	130,626	337,753	61.3
November	194,028	17,644	109,023	126,667	320,695	60.5
December	211,440	17,013	118,077	135,090	346,530	61.0
January	201,156	16,823	114,360	131,183	332,339	60.5
February	215,285	17,111	123,653	140,764	356,049	60.5
March	273,655	21,859	153,163	175,022	448,677	61.0
April	214,125	18,730	119,112	137,842	351,967	60.8
May	218,929	18,785	124,019	142,804	361,733	60.5
June ¹	270,310	23,988	155,185	179,173	NA	NA
July ¹	NA	14,515	105,288	119,803	NA	NA

¹Preliminary. NA = not available.

Compiled from reports of the Bureau of the Census.

The 5.9-million-bale forecast for 1983/84 is supported by an analysis of U.S. domestic cotton consumption for calendar years 1970 through 1982, and recent trends in the cotton textile trade deficit. The crop year mill use estimate is derived by subtracting the estimated trade deficit from the estimate of domestic consumption, and then using seasonal adjustment factors to transform the estimate from a calendar to a crop year.

Domestic Cotton Consumption To Rise

Figure 1 shows how domestic cotton consumption and mill use have changed since 1970. Both have declined every year since 1966, except for the recovery years of 1971 and 1976. However, a fundamental shift in demand in favor of cotton is forecast, and domestic consumption is expected to rise again in 1984.

U.S. Cotton Consumption—Domestic and Mill Use

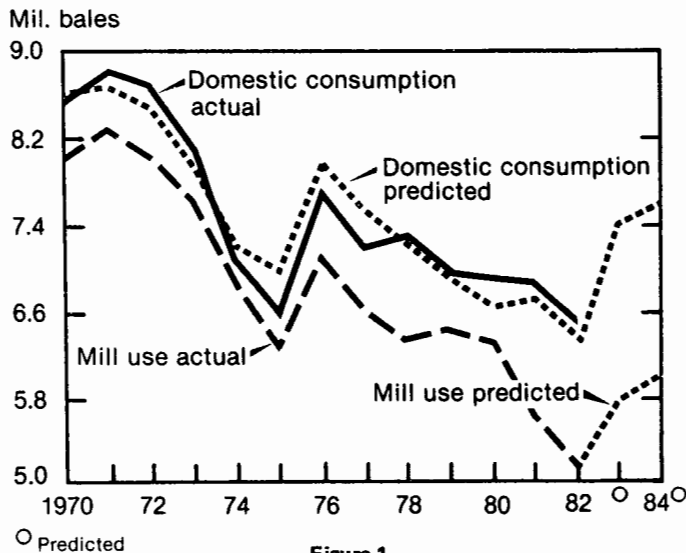


Figure 1

Demand for cotton products is affected by prices, consumer incomes, population growth, industrial activity, housing starts, changes in textile industry technology, consumer preferences, and other variables. Many statistical formulations are possible, but manmade fiber quantities and prices, changes in general economic conditions (including GNP, interest rates and exchange rates), and cotton prices seem to be the most important factors influencing the demand for cotton.

The combination of consumer preferences for easy-care fabrics and changing textile and chemical industry technology in producing manmade fiber products is represented quantitatively by changes in cotton's proportion of total fiber used by domestic mills. In 1970, cotton made up over 40 percent of all the fibers consumed domestically. This proportion eroded to about 24.5 percent by 1978, fell to 23.5 percent in 1981, but rebounded to 24.5 percent in 1982. Since industrial markets are more important to manmade fibers than to cotton, the recession caused cotton's share of total fiber consumption to rise in 1982. With the economic recovery, cotton's share is again declining. Through the first half of 1983, it fell from 26.2 percent in January to 23.6 percent in June.

However, increased purchases of natural blend apparel indicate that consumer preferences are shifting toward increased cotton consumption, and the difference

between cotton and polyester prices should narrow later this year (table 20).

Cotton prices rose from 4 cents below polyester prices on a raw fiber equivalent basis at U.S. mills in October 1982 to nearly 14 cents above during July 1983. However, polyester prices are expected to rise by as much as 5 cents per pound this fall due to stronger demand. The rise in polyester prices and the issuance of PIK entitlements this fall should narrow the difference between cotton and polyester prices. This, combined with changing consumer preferences in favor of cotton in apparel, will likely help stabilize cotton's share of total fiber use. Based on expectations of a continued recovery and the assumption that cotton's share of total fiber use will not drop below previous lows, cotton's share may average 24 percent in 1983 and 1984.

Changes in overall economic activity can be represented by the percent change in real Gross National Product (GNP). Real GNP accounts for a wide variety of demand related factors, including consumer spending, housing starts, industrial activity, and population growth. Since textile products, including apparel, are soft durables, cotton consumption is highly correlated with overall economic activity. Real GNP is expected to grow by as much as 3.5 percent in 1983 and by about 5 percent in 1984.

Cotton's share of total mill use and percent change in GNP explain 94 percent of the variation in domestic cotton consumption in the United States between 1970 and 1982. This conclusion is based on the following estimated equation:

$$DCC = 3427.95 + 129.81 MS + 134.97 GNP$$

where DCC = domestic cotton consumption in 1,000 480-lb. bales.
MS = cotton's share of total fiber used by mills in percent.
GNP = percent change in real GNP

The correlation between actual and predicted domestic consumption is shown in figure 1. The largest errors occurred in 1975 and 1977 when the difference between actual and predicted values equaled 376,000 and 323,000 bales, respectively. In most years, the error was less than 150,000 bales. In 1978 and 1981, the equation failed to predict the change of direction in domestic consumption.

The point estimates for domestic consumption, based on expected GNP growth rates and stabilization of cotton's share of domestic fiber markets, are about 7.0 million bales in 1983 and 7.2 million in 1984. The 95-percent confidence intervals around these estimates are 6.5 to 7.6 million bales in 1983 and 6.7 to 7.8 million bales in 1984. If consumer preferences are not changing in favor of natural fibers, or if the recovery should stall, the forecasts would be high.

The U.S. population is expected to grow to 234.3 million in 1983 and 236.5 million in 1984. Using the upper ranges for the confidence intervals given above, per capita cotton consumption could go as high as 15.6 pounds in 1983 and 15.8 pounds in 1984, similar to levels in 1977 and 1978. During the second quarter of 1983, per capita consumption of cotton was running at a seasonally adjusted annual rate of 15.48 pounds, the highest since 1978. Consequently, domestic consumption near the high end of the confidence intervals, 7.4 and 7.6 million bales in 1983 and 1984, respectively, appears likely.

Trade Deficit Also Expanding

To arrive at a domestic mill use forecast, the cotton textile trade deficit must be estimated and subtracted from the forecast for domestic cotton consumption. The following table shows the trend in the trade deficit since 1970:

History of the cotton textile trade deficit

Year	Domestic cotton consumption	Imports	Cotton textile trade		Trade deficit as percent of domestic consumption
			Exports	Deficit	
			1,000 480-lb. bales		
1970	8,579	965	415	550	
1971	8,858	1,026	471	555	
1972	8,717	1,272	605	667	7.7
1973	8,116	1,174	677	497	6.1
1974	7,123	1,047	818	229	3.2
1975	6,613	1,044	737	307	4.6
1976	7,728	1,476	861	615	8.0
1977	7,229	1,395	770	625	8.6
1978	7,352	1,761	744	1,017	13.8
1979	6,966	1,554	999	555	8.0
1980	6,915	1,689	1,100	589	8.5
1981	6,896	2,004	765	1,239	18.0
1982	6,524	1,869	528	1,341	20.6
1983 ¹	7,400	2,100	500	1,600	22.0
1984 ¹	7,600	2,250	650	1,600	21.0

¹Forecast.

The trade deficit has grown because textile imports have risen and textile exports have fallen. The trend will likely continue in 1983. During the first 6 months of 1983, cotton textile imports equaled about 1.1 million raw fiber equivalent bales, while exports totaled 237,000 bales. Allowing for seasonal adjustments, if these rates were to continue for the entire year, cotton textile imports would equal 2.25 million bales, and exports would reach only 460,000 (tables 22-25). The trade deficit would be about 1.8 million bales, 23.5 percent of domestic consumption.

U.S. unit production costs will likely remain above foreign costs, even in the long run, because of the labor-intensive nature of the textile industry. Therefore, imports will probably continue to grow. However, the pace of imports is likely to slow during the rest of the year, while exports should expand, as other economies begin to follow the United States out of recession and as U.S. import quotas begin to fill in important categories. As other economies begin to strengthen, interest rates and general investment opportunities in those countries will improve. Higher foreign interest rates, combined with the large U.S. balance of trade deficit, will help weaken the dollar.

Rising quota prices in Hong Kong serve as evidence that U.S. quotas are being filled. The right to export men's cotton pants to the United States from Hong Kong now costs over \$30 per dozen, compared with \$3 per dozen last year. Quota prices on women's cotton blouses are up from \$6 to \$15 per dozen, and quota prices on men's cotton shirts are up to \$7 per dozen, compared with \$1.50 last year. Quota prices on other categories, especially cotton sweaters, are also beginning to limit imports. About one-half of the growth in cotton textile imports in 1983 has come from Hong Kong, South Korea, Taiwan, and China in categories that are covered by quo-

tas. While importers can, to some extent, shift to other categories and to other countries with excess quota, the trade restrictions should begin to limit shipments in the last half of 1983.

The recent agreement with China on textile trade covers 86 percent of the cotton apparel products exported to the United States by China, and annual increases

averaging 3.8 percent in the quotas for each category are allowed. However, the new agreement covers more categories than the old agreement, so greater control over total imports from China will be possible. During the first half of 1983, cotton textile imports from China increased by about 13 percent over a year earlier. For all of 1983, however, the rate of growth is expected to be less than 13 percent.

U.S. cotton textile imports are expected to reach 2.1 million bales in 1983, and 2.25 million in 1984. Exports are expected to increase slightly in the last half of 1983 and reach the equivalent of 500,000 bales for the year, and then increase to 650,000 in 1984.

Exports To Rise Slightly

U.S. raw cotton exports are expected to remain at about 5.3 million bales in 1983/84. A shortage of qualities usually exported and slower economic growth overseas than in the United States will prevent an increase in exports matching the forecast increase in mill use.

This season's forecast is based on an analysis of available supplies and expected mill use in the United States, competing exporting nations, and importing nations. The total volume of world trade in cotton should rise as indicated by the sum of production plus carryin stocks minus expected use in importing nations (importers' deficit). This deficit is forecast to grow from 4.3 million bales in 1982/83 to about 5.35 million in 1983/84. However, the United States will have difficulty maintaining or increasing its share of total trade, as a large proportion of world production and stocks is shifting overseas. The ratio of production plus carryin minus use in the United States (the U.S. exportable surplus), divided by production plus carryin stocks minus use in competing exporting countries (foreign exporters' surplus), will fall from

about 0.68 in 1982/83 to about 0.49 in 1983/84.

The following table presents historical data on the ratio of U.S. to foreign exporters' surplus and importers' deficits:

Crop year	U.S. surplus (divided by) exporters' surplus	Importers' deficit
	Ratio	1,000 480-lb. bales
1970	0.39	-5,811
1971	.28	-5,345
1972	.39	-6,915
1973	.44	-5,670
1974	.37	-2,523
1975	.30	-4,975
1976	.39	-6,306
1977	.50	-7,040
1978	.48	-6,466
1979	.56	-9,174
1980	.37	-7,307
1981	.60	-6,263
1982 ¹	.68	-4,295
1983 ²	.49	-5,350

¹Preliminary. ²Forecast.

About 78 percent of the variation in U.S. exports between 1970/71 and 1982/83 is explained by the following equation:

$$X = -1492.98 + 6819.98 (\text{ratio}) - 0.63 (\text{ID})$$

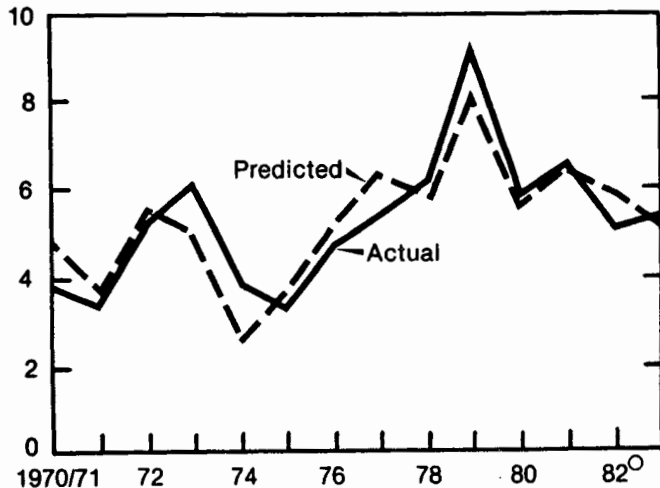
where X = U.S. exports in 1,000 480-lb. bales.
Ratio = U.S. surplus/exporters' surplus.
ID = Importers' deficit, in 1,000 480-lb. bales.

The point estimate for U.S. exports in 1983/84, based on this equation, is 5.2 million bales. The 90-percent confidence interval around this estimate ranges from 4.0 to 6.4 million bales. The performance of this equation in explaining exports since 1970/71 is shown in figure 2. The largest errors, 1.0 million bales and 1.3 million, occurred in 1973/74 and 1974/75. The equation failed to predict changes in the direction of exports in 1973/74, 1975/76, and 1978/79.

USDA's estimate of 5.3 million bales for 1983/84 exports is slightly above the indicated amount based on the recent pace of exports, competitive U.S. prices, and expanding world demand.

U.S. Cotton Exports

Mil. bales



○ 1982 preliminary, 1983 estimated.

Figure 2

During the last 3 months of 1982/83, U.S. exports ran at a seasonally adjusted annual rate of 5.4 million bales, an improvement over the 4.5-million-bale rate maintained during the previous 3 months. Prices of Memphis territory U.S. cotton in Northern Europe were below the prices of competing supplies from April through July, and this situation may continue into December (table 6). Producers in the Southern Hemisphere are experiencing production and quality problems. The Soviet Union will not be able to export until the new crop is ginned in late 1983 or early 1984.

Table 6.—Index of prices of selected cotton growths and qualities, and price per pound of U.S. M-1-3/32" c.l.f Northern Europe

Month	1982		1983	
	Index ¹	U.S. M 1-3/32"	Index ¹	U.S. M 1-3/32"
Cents				
January	69.98	72.75	71.88	74.25
February	69.98	72.50	74.32	75.50
March	70.44	74.69	78.89	81.35
April	71.52	77.40	80.23	80.75
May	76.69	78.88	81.96	80.63
June	75.64	75.38	86.01	85.05
July	78.47	80.60	88.44	88.06
August	76.40	77.13		
September	72.75	74.10		
October	70.21	73.38		
November	69.04	72.00		
December	69.67	73.25		
Average	72.57	75.17		

¹Outlook "A" Index of Liverpool Cotton Services. Average of the 5 lowest priced of 10 selected growths.

Cotton Outlook, Liverpool Cotton Services.

Demand overseas is forecast to grow. Foreign consumption is expected to climb from 61.8 million bales in 1982/83 to 63.5 million in 1983/84. China, the world's largest producer, is expanding consumption faster than production, and will remain a net importer. The economies of our major export customers—Japan, South Korea, and Taiwan—are expected to grow between 4 and 6 percent in real terms in 1984. The economies of Western Europe, major textile consumers, are expected to grow about 3 percent in 1984, compared with 1 percent in 1983. The following table indicates the likely destination of U.S. exports this season.

Importers	1,000 480-lb. bales	Imports from U.S. as percent of total	
		1982/83	1983/84
Japan	1,450	44	43
Korea	1,400	88	83
Taiwan	425	39	39
Hong Kong	200	30	23
Italy	140	15	12
France	75	09	06
West Germany	110	14	13
Other	1,500		
Total U.S. exports	5,300	29	29

**Sharply Lower Stocks-to-Use Ratio
Could Affect 1983-Crop Deficiency Payments**

With supply expected to equal 15.8 million bales and use 11.2 million, carryover stocks should fall by about 3.3 million to 4.6 million bales. The ratio of total use to supply is expected to equal 0.71, compared with 0.58 in 1982/83 and 0.74 on average since 1970/71 (figure 3). The ratio of ending stocks to use is expected to equal about 0.41, compared with 0.74 last season and 0.33 on average (figure 4). Since 1960, average farm prices have risen above the loan rate when the stocks-to-use ratio has fallen below 0.50.

Deficiency payments for the 1983 crop will be based on the difference between the target price, 76 cents per pound, and the weighted average farm price for the 1983 calendar year. The unweighted average farm price for upland cotton for January through July was 58.8 cents a pound (table 21 and figure 5). However, many PIK entitlements have already been forward sold at prices believed to average 55 cents per pound, and these sales will affect calculated average farm prices during the delivery months this fall. On the other hand, the stocks-to-use situation described above could offset the effects of lower-priced PIK cotton when the deficiency payment rate is calculated.

World Cotton Outlook for 1983/84

**Ending Stocks To Decline Despite
Foreign Production Increase**

With world beginning stocks estimated at 28 million bales, 1983/84 production at 66.3 million, and consumption at 69.4 million, ending stocks for 1983/84 are likely to fall to about 24.5 million bales (table 7). Total world trade in raw cotton is projected at 18.5 million bales, about 500,000 above 1982/83.

Production in foreign net exporting nations is expected to rise to 32.7 million bales this season from 30.7 million in 1982/83. The largest production increase among exporting countries is expected in the Soviet Union where 12.5 million bales are forecast, compared with an estimated 11.9 million last year.

Cotton Use/Supply and Farm Price

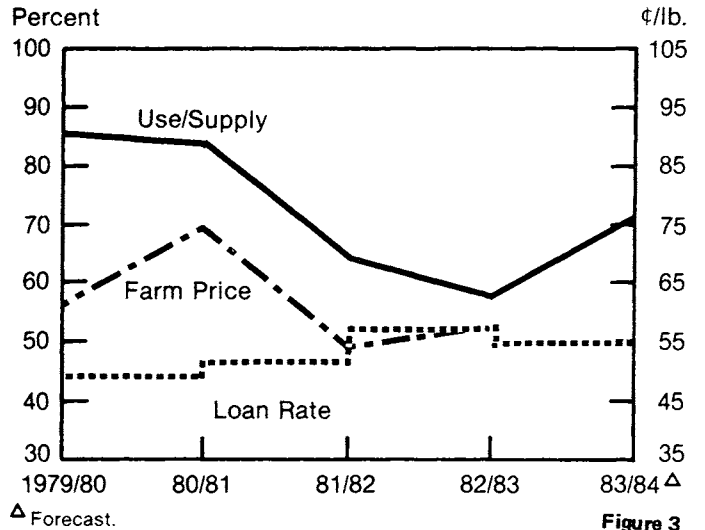
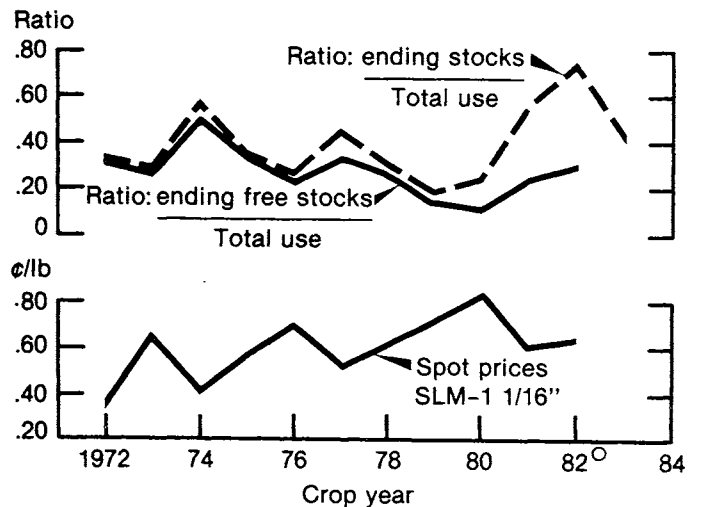


Figure 3

U.S. Price Fundamentals



○ 1982 estimated, 1983 forecast.

Figure 4

U.S. Cotton Prices

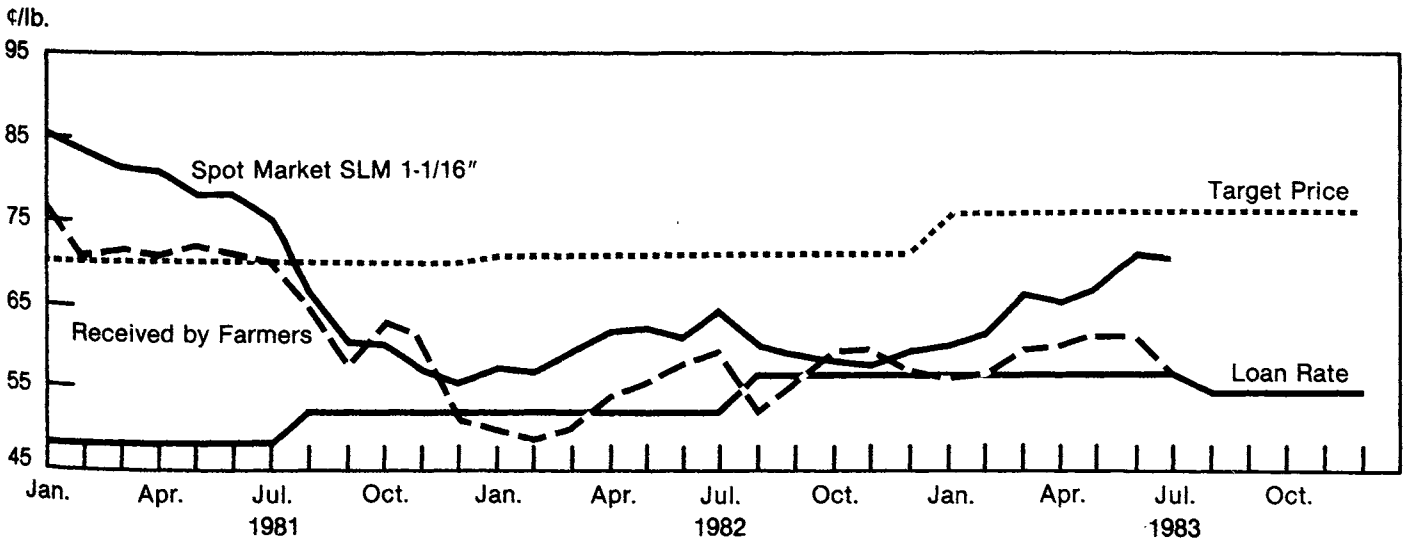


Figure 5

Neg. ERS 2597-83(8)

USDA

Table 7.—Cotton: Supply and use; U.S., major importers, major exporters, and world

Year beginning August 1	United States	World less United States				World ³
		Major importers ¹	Major exporters ²	Other	Total	
<i>Million 480-pound bales</i>						
1982/83						
Supply						
Beginning stocks	6.6	9.3	4.1	7.9	21.3	27.9
Production	12.0	17.2	22.6	15.9	55.7	67.6
Imports	(4)	14.5	.6	2.7	17.9	18.0
Use						
Mill use	5.5	31.4	15.4	14.9	61.8	67.3
Exports	5.2	.4	7.7	4.7	12.8	18.0
Ending stocks	8.0	9.1	4.0	6.9	20.0	28.0
1983/84						
Supply						
Beginning stocks	8.0	9.1	4.0	6.9	20.0	28.0
Production	7.8	17.8	23.8	17.0	58.5	66.3
Imports	(4)	15.0	.5	2.8	18.3	18.3
Use						
Mill use	5.9	32.5	15.7	15.3	63.5	69.4
Exports	5.3	.5	8.2	4.6	13.2	18.5
Ending stocks	4.7	9.0	4.2	6.7	19.9	24.5

¹Includes Western Europe, Eastern Europe, Japan, PRC, Korea, Taiwan, and Hong Kong. ²Includes the USSR, Pakistan, Egypt, Sudan, Turkey, Central America, and Mexico. ³Total trade of individual countries, including intra-regional trade. World imports and exports may not balance due to cotton in transit and reporting discrepancies in some countries. ⁴Less than 50,000 bales.

Totals may not add and stocks may not balance due to rounding, a small quantity of cotton destroyed, and differences unaccounted.

Production in Argentina, Brazil, Colombia, Guatemala, Mexico, Paraguay, and Peru combined is expected to rise by 940,000 bales, or almost 18 percent over 1982. Egypt and Sudan are expected to harvest 3.1 million bales, little changed from 1982. Australian production is expected to rise by 180,000 bales to 641,000. Production in Pakistan is expected to rise by 150,000 bales to 3.9 million. When combined with carryin stocks, the production in foreign exporting nations should give those countries a total 1983/84 supply of about 40.8 million bales, compared with 39.7 million in 1982/83.

Production in net importing countries is expected to reach almost 25.7 million bales this season, a million above 1982/83. Almost all of the increase is expected in China, 500,000 bales, and India, 200,000 bales. Chinese production is expected to rise to 17 million bales, while production in India is forecast at 6.5 million bales. Production in Thailand and South Africa is also rising. Production plus beginning stocks in importing countries will total approximately 37.4 million bales in 1983/84, up about 400,000 from last season.

World Consumption Increasing

World consumption in 1983/84 is projected to rise to 69.4 million bales as population growth and rising incomes spur demand, while increased production overseas makes larger supplies available in certain markets. Consumption in China probably will exceed its production of 17 million bales by 200,000, an increase of 700,000 over 1982/83. This will likely be the second year in a row that China's production will approximately equal its consumption.

Consumption in India is likely to grow by about 200,000 bales to nearly 6.5 million, and consumption in Japan, South Korea, and Taiwan may rise by a combined total of 200,000 bales. Other importing nations will also

consume more cotton in 1983/84 than in the previous year, and total cotton mill use in net importing nations should rise to about 42.7 million bales, compared with 41.3 million last season.

Among foreign cotton exporting nations, the major consumption increases should occur in Pakistan and the Soviet Union. Mill use in Pakistan is expected to rise by 150,000 bales to 2.5 million as the Government continues its efforts to expand the textile industry. Soviet consumption is expected to increase by 100,000 bales, continuing an upward trend since the early 1970's. Total consumption among foreign net exporters of cotton is expected to rise by about 350,000 bales to 20.8 million in 1983/84. Including the United States, consumption among all exporters may rise more than 700,000 bales to 26.7 million.

World Trade To Expand Along With Consumption

World trade is expected to rise from 18 million bales in 1982/83 to 18.5 million in 1983/84, due to rising world cotton consumption and larger importers' deficits. Japanese imports are likely to rise 225,000 bales to 3.3 million to keep ending stocks in 1983/84 equal to beginning stocks of about 620,000 bales. Likewise, Taiwan and South Korea are expected to increase imports by 150,000 and 60,000 bales, respectively, to accommodate increased consumption while holding stocks steady.

The United States, Pakistan, and the Soviet Union are each expected to increase their exports by 100,000 to 200,000 bales. While the United States will be trying to reduce its carryover stocks, several foreign exporters, especially Mexico, are forecast to rebuild their stock levels.

Ratio of Stocks to Mill Use To Decline

With declining production and rising mill use, the ratio of world ending stocks to mill use is expected to decline from 0.42 to 0.35 in 1983/84. A regional breakdown of ending stocks-to-use ratios is shown in the following table:

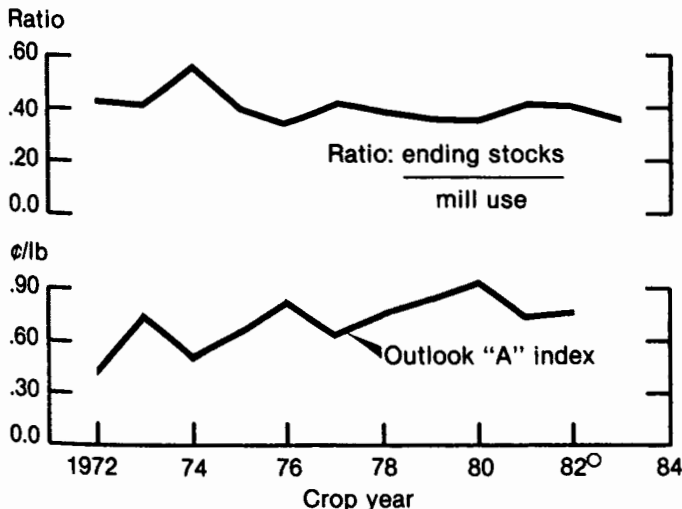
	1981/82	1982/83 estimated	1983/84 forecast
Importing countries			
W. Hemisphere	0.30	0.30	0.31
W. Europe	.39	.36	.35
E. Europe	.25	.24	.23
Asia/Oceania	.29	.27	.27
Africa	.32	.28	.30
Total	.30	.28	.27
Exporting countries			
W. Hemisphere	1.08	1.11	.77
Asia/Oceania	.29	.27	.27
Africa	.71	.72	.81
Total	.62	.62	.50
World less U.S.	.35	.32	.31
World	.42	.42	.35

The stocks-to-use ratio in importing countries should fall slightly as European countries seek to reduce their carryover levels. The major importing countries in Asia are expected to hold their stocks level relative to consumption.

The stocks-to-use ratio in exporting countries will decline sharply because of the U.S. situation. Exporters in Asia, which includes the Soviet Union, are expected to maintain their current stock levels.

Figure 6 portrays the relationship between world cotton prices, represented by the season average Outlook "A" index and the ratio of world ending stocks to mill use. The simple correlation between the stocks-to-use ratio and the "A" index during the past decade is -0.71, indicating that the ratio explains about half the variation in world price movements. Since 1972/73, the ratio has been inversely related to changes in the "A" index every year, with a decline of 0.05 in the stocks-to-use ratio corresponding to roughly an 8-cent per pound increase in the "A" index.

World Price Fundamentals



○ 1982 estimated, 1983 forecast.

Figure 6

Review of 1982/83

U.S. Mill Use Improved, Ending Stocks Very Large

The 1982/83 season finished with U.S. ending stocks of about 7.9 million bales, despite improved mill use and exports during the last half of the year, (table 18). The 1982 crop totaled about 12 million bales, about 0.9 million above the August 1982 estimate. The average yield of 590 pounds per harvested acre was a record. Production was marked by a large decline in harvested acreage in Texas, due to storm damage, and a general decline in all regions due to the 15-percent acreage reduction program and low farm prices.

Mill use totaled 5.5 million bales, up 248,000 over the previous year, and very near USDA's August 1982 prediction of 5.6 million bales. Based on general evidence, production of denim, toweling, all-cotton bed sheeting, and polyester/cotton twills has contributed the most to improved cotton use, (table 8). Denim production

Table 8.—Estimated mill consumption of raw cotton by major type of textile product

Item	1982 ¹				1983 ¹
	1 Q	2 Q	3 Q	4 Q	1 Q
	1,000 bales ²				
Wholly or chiefly cotton					
Duck	33	29	30	28	31
Sheeting & allied coarse	104	88	72	83	95
Print cloth	69	67	62	68	72
Denim	223	209	225	269	317
Toweling	160	170	148	184	182
Blanketing	17	20	19	28	24
Corduroy	68	69	55	52	59
Miscellaneous ³	72	81	87	113	101
Total	746	733	698	825	881
Polyester/cotton fabrics					
Batiste	11	10	10	5	7
Bed sheeting	82	72	64	62	70
Broadcloth	14	13	12	13	16
Twills	57	61	51	58	74
Oxfords	4	4	5	5	6
Poplins	23	21	19	19	20
Sateens	2	3	2	1	1
Yarn dyed fabric	17	16	17	14	16
Print cloth	47	37	34	39	45
Other	25	23	19	20	21
Total	282	260	233	236	276
Other textile products					
Knit fabric	314	312	287	293	300
Narrow	14	14	10	10	12
Thread	23	21	19	18	21
Rope	14	13	11	10	10
Total	365	360	327	331	341
Grand total	1,388	1,351	1,252	1,389	1,498
Actual mill consumption	1,300	1,325	1,252	1,306	1,429
Residual	+88	+26	0	+83	+69

¹Preliminary, 1982 figures revised. ²480-pounds, net weight. ³Includes fine cotton fabrics.

Based on data from Bureau of the Census reports and National Cotton Council.

accounted for only 0.9 million bales of cotton in 1982, but this could grow to approximately 1.1 million in 1983, the highest level since 1977. In 1982, almost 700,000 bales of cotton were used in toweling, and this may increase an additional 100,000 in 1983. Use of cotton in all-cotton bed sheets and in fine cotton products totaled about 350,000 bales last year, and this may climb to nearly 500,000 bales in 1983. Use of cotton in polyester/cotton twills may grow by about 50,000 bales.

The changeover from corduroy mini blends, containing only 13-percent manmade fibers, to ground-pick corduroy, containing 25-percent manmade fibers, is causing cotton consumption in corduroy to decline by up to 30,000 bales in 1983. Cotton use in polyester/cotton bed sheeting may fall to 240,000 bales in 1983, about half the amount consumed in 1978.

Recession and China Knocked Exports

Exports finished the season at about 5.25 million bales, far below the August 1982 estimate of 6.7 million. The length of the world recession, coupled with a complete absence of Chinese business, accounted for the shortfall. China no longer needs to be a large importer of cotton since its own ability to produce has improved, and even with the signing of the new textile agreement, China cannot be expected to absorb a large share of U.S. exports. Exports to Japan, Korea, Taiwan, and Hong Kong fell by a combined total of over 1 million bales due to the recession. Exports to Western Europe also declined.

Exports to Thailand, Canada, and several other countries rose. Increased exports to Canada, Thailand, Bangladesh, and the Philippines reflected an expansion in textile activity in those countries. Exports to the Soviet Union and Eastern Europe rose from zero to 352,000 bales due to a production shortfall in the Soviet Union.

Stocks Rose

Ending stocks for 1982/83 wound up at 7.9 million bales, 2.6 million larger than anticipated in August 1982. The ratio of ending stocks to use reached 0.74, the highest since 1967. Accordingly, average farm prices hovered near the loan rate of 57.08 cents per pound for most of the year, and rose in the last half of the season only after PIK was announced and poor weather delayed 1983 plantings.

During the course of the season, about 5 million bales, or 42 percent of the 1982 crop, was placed under loan with the CCC. By the season's end, more than 2.4 million bales of the 1982 crop remained under loan, helping to support market prices.

Foreign Stocks Declined As Predicted

Foreign production in 1982/83 rose slightly to 55.7 million bales, continuing a trend uninterrupted since 1978. Foreign mill use reached 61.8 million bales, an increase of 1.2 million over the previous season, and ending stocks in foreign countries declined to about 20.0 million bales, from 21.3 million.

The changes in foreign production and consumption between 1981/82 and 1982/83 were dominated by China. Chinese production increased by 2.9 million bales to 16.5 million, offsetting declines in the Soviet Union and the Western Hemisphere. Chinese consumption increased by 800,000 bales, accounting for nearly all of the 1.1-million-bale increase in foreign mill use.

The ratio of world ending stocks to use remained at 0.42 in 1982/83, and the season average of the Outlook "A" index increased about 3 cents per pound to 76.7 cents. Average spot prices for U.S. SLM 1-1/16 inch cotton followed the "A" index, rising by about 3 cents a pound to 63.1 cents.

ELS Cotton Outlook For 1983/84

Ending Stocks Could Go Lower

A resurgence of demand between January and June 1983, and passage of a new extra-long staple (ELS) cotton program, have brightened the ELS outlook. Congress has agreed to revisions in the ELS program which will allow the CCC to sell Government-owned ELS cotton stocks in an effort to expand markets. Domestic use especially is expected to benefit from this change. Mill use for 1983/84 is now forecast at 75,000 bales, and exports are expected to reach 15,000. The August crop report indicated that production could be about 78,000 bales. With beginning stocks set at 97,000 bales and production less than total offtake, 1983/84 ending stocks could fall below 90,000 bales.

Production Down, Consumption Up in 1983/84

American Pima production is forecast at 78,000 bales on 62,000 planted acres. The production decline from 99,000 in 1982/83 results partially because allotments were reduced from last year's 120,000 acres to 80,000 in 1983, and because poor weather has reduced yield expectations to 608 pounds from 672 last year. Arizona is expected to produce 49,000 bales, New Mexico 11,000 and Texas 18,000.

Since 1968/69, over 90 percent of the variation in ELS mill use has been explained by trends in the consumption of all cotton and by changes in the difference between farm prices for pima cotton and farm prices for upland cotton. In 1983, the difference between pima and upland prices is expected to narrow, and total mill use is estimated to rise about 400,000 bales. Increased use of pima in nontraditional ELS products, such as shirts, sheets and towels, is also expected to stimulate ELS demand. Given these conditions, ELS mill use is expected to rise for the second year in a row.

Sales of ELS stocks by the CCC will complement the shift in demand. During 1983/84, CCC will probably have 50,000 to 60,000 bales to offer. Efforts are being made to catalogue this inventory as quickly as possible for sale prior to the availability of the new crop. About one-half of the CCC-owned stocks are estimated to consist of poorer qualities that may be difficult to sell. However, stocks of higher quality might be used effectively in developing markets for this product, and it is possible that U.S. mill use could be boosted to about 75,000 bales.

ELS exports in 1983/84 are estimated at 15,000 bales, compared with last year's 14,000. With ELS prices still supported by the CCC loan rate above world market prices, and with production in Egypt and Sudan expanding, exports are not expected to grow very much. Nevertheless, general economic conditions indicate that some improvement can be expected.

Review of the 1982/83 ELS Season

Stocks Grow Despite Improved Consumption

ELS mill use surged during May, June, and July to boost consumption for the season to 55,000 bales, compared with 48,000 in 1981/82. During June, mill use peaked at a seasonally adjusted annual rate of 84,000 bales, representing the effects of growing consumer income and pent-up demand for luxury products. There is also evidence of a shift in consumer demand toward new pima products, although consumption at the June and July rates is not likely to be sustained during all of 1983/84.

ELS exports finished at 14,000 bales in 1982/83, almost unchanged from the year earlier. Strong competition from major ELS-producing nations such as Egypt and Sudan prevented U.S. ELS cotton from moving in larger quantities.

Production of American Pima in 1982 reached 99,000 bales on 70,500 harvested acres. Since this exceeded total offtake by 30,000 bales, ELS ending stocks grew to approximately 97,000, the highest since 1969. Average farm prices were near the loan rate throughout the year, and over 60 percent of the 1982 crop was put under loan at some time.

MANMADE FIBER REVIEW

Production and Shipments Reflect General Economy

Reflecting the sharply improved economy, manmade fiber production (including glass) in second-quarter 1983 was 2.31 billion pounds, 17 percent more than a year earlier and 11 percent above the first quarter (table 26). It was the largest output since third-quarter 1981. Second-quarter staple production was 1.1 billion pounds, 13 percent greater than in the first quarter while filament production, at 1.2 billion pounds, was 8 percent larger.

Manmade fiber production capacity in the second quarter was 2.98 billion pounds, 0.3 percent less than the first quarter. Staple capacity was 1.33 billion pounds, while filament capacity was 1.65 billion pounds. Manmade fiber plants in the second quarter operated at 78 percent of capacity on average, compared with 70 percent in the first. Four fiber types had operating rates in the range usually needed by fiber producers to obtain a desirable rate of return on investment: nylon staple—95 percent, polyester filament—90 percent, acrylic staple—86 percent, and polyester staple—82 percent. Manmade fiber production capacity in 1985 is projected at 12.3 billion pounds, a 1.4-percent average annual growth rate from 1983. Fiber types expected to have relatively large average annual growth rates in the next 2 years are: olefin staple—6.1 percent, nylon staple—4.1 percent, glass filament—3.4 percent, and olefin filament—3.3 percent. Polyester filament was the only fiber expected to have a decline in capacity—an average of 1.2 percent annually.

Total shipments (domestic plus exports) of nonglass manmade fibers in second-quarter 1983 were 2.11 billion pounds, 13 percent more than the first quarter and 18 percent above a year earlier. Noncellulosic fibers accounted for 1.96 billion pounds, or 93 percent, and cellulosic fibers 0.15 billion pounds, or 7 percent.

Domestic shipments of noncellulosic fibers in the second quarter were 1.84 billion pounds, 15 percent greater than the first quarter and the largest quantity since second-quarter 1981. Cellulosic fiber shipments were 0.14 billion pounds, 10 percent above the first quarter and the largest quantity since fourth-quarter 1981. Exports of manmade fibers, particularly polyester staple, dropped to the lowest level in 4 years because of the loss of sales to the Far East.

Woven Up Moderately, Carpets and Knits Use Up Sharply

Consumption data for the three major manmade fiber markets are shown in table 9. The largest market, woven textiles, experienced moderate growth, taking 535 million pounds in first-quarter 1983, slightly more than 6 percent above the fourth quarter. Olefin fibers, while only 10 percent of fibers used in woven markets, had the largest percentage growth from the fourth quarter, 17 percent. Their principal woven use is upholstery fabric. Polyester fibers, comprising 66 percent of the fibers used in this market, increased 4.6 percent.

Carpet use of manmade fibers continues to be a fast growing fiber market. In the first quarter, 452 million pounds were used to make carpets, 10 percent above the fourth quarter. Nylon fibers, about 71 percent of this market, grew 9 percent in the first quarter. Preliminary second quarter data indicate that nylon carpet fibers increased 31 percent over the first quarter. This quantity of total nylon fibers in carpets, as well as the quantity of nylon staple, was a record high. These preliminary data also show that polyester use in carpets increased 14 percent in the second quarter.

Knitted textile products in the first quarter sharply rebounded with the largest quarter-to-quarter increase—18 percent—in more than 5 years. This demand, 373 million pounds, was about equally divided between filament and staple fibers. The knit filament products were mostly double knit outerwear where inventories had become low. Some buying of polyester filament may also have occurred in advance of an announced price increase. The larger shipments of staple fibers to knit markets resulted from low apparel inventories such as men's underwear, blouses, T-shirts, and golf-polo style shirts.

As the economy rebounded in the spring and summer, producers of raw materials for noncellulosic fibers tended to raise prices where possible. The spot price of xylene (a raw material for polyester fibers) rose from \$1.14-\$1.15 per gallon in mid-May to \$1.18-\$1.20 in mid-August. The markets strengthened from increasing polyester production and low inventories at home and abroad.

Cyclohexane, a raw material for nylon, was priced at \$1.46 to \$1.47 per gallon at the beginning of the second quarter. By the end of the quarter, the price had risen to \$1.51 per gallon, and it rose an additional 2 cents in July, as the demand for manmade fiber textile, particularly carpets, increased.

Table 9.—U.S. major manmade fiber markets¹

Fiber type	1981				1982				1983	
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q
<i>Million pounds</i>										
<i>Woven products</i>										
Total	580.7	646.0	614.6	553.8	480.5	491.0	476.8	503.9	535.3	NA
Polyester	380.3	440.8	410.2	358.8	318.1	322.1	318.6	337.3	352.8	NA
Rayon	56.5	58.2	57.6	52.4	38.2	34.4	35.1	37.8	40.8	NA
Olefin	58.5	59.2	57.5	55.2	49.3	53.6	48.8	49.0	57.5	NA
Nylon	43.5	43.2	44.0	44.9	41.3	43.5	39.8	44.2	43.7	NA
Acetate	24.3	29.9	31.8	27.2	23.2	24.0	21.9	22.6	25.1	NA
Acrylic	17.6	14.7	13.5	15.3	10.4	13.4	12.6	13.0	15.4	NA
<i>Knit products</i>										
Total	402.2	427.7	384.1	325.6	318.7	332.6	318.8	315.4	373.0	NA
Polyester	201.0	203.0	189.5	160.1	151.4	151.6	150.7	150.5	191.1	NA
Nylon	82.8	85.3	76.7	73.6	64.6	61.3	63.0	64.2	71.1	NA
Acrylic	87.2	96.8	90.5	72.7	79.1	95.6	85.1	83.3	89.6	NA
Acetate	28.5	39.3	24.8	16.9	20.6	21.2	17.1	14.4	18.7	NA
Rayon	2.7	3.3	2.6	2.3	3.0	2.9	2.9	3.0	2.5	NA
<i>Carpets</i>										
Total	487.0	507.5	399.6	333.5	359.4	412.9	439.2	408.9	451.5	NA
Nylon	369.7	379.6	282.9	218.8	248.7	291.5	319.8	293.9	319.2	417.3
Olefin	90.3	90.3	87.3	84.4	86.1	89.2	91.7	84.5	97.6	NA
Polyester	27.0	37.6	29.2	30.2	24.6	32.0	27.6	30.5	34.7	39.7
Acrylic	—	—	—	—	—	—	—	—	—	NA
Rayon	—	—	.2	.1	—	.2	.1	—	—	NA

¹Filament plus staple.

NA = not available.

Compiled from Textile Organon.

WOOL SITUATION

U.S. Situation

Quarterly Use Sets 10-Year Record

Raw wool mill consumption in second-quarter 1983 was 37.5 million pounds, clean, 9.4 percent more than the first quarter and almost 29 percent above a year earlier (table 10). This was the most raw wool used by mills in any quarter of the last 10 years. The increase was caused by rising demand for all fibers as well as normal increases in production for the fall and winter seasons. Apparel needs totaled 34.3 million pounds, clean, 29 percent more than a year earlier. The worsted system used 17.2 million pounds, an increase of 17 percent, while the woolen system took 17.1 million pounds, clean, up 43 percent. Mills in first-half 1983 continued their preference for the finer grades, 60's and finer. About 65 percent of the worsted system wool and 58 percent of the woolen system were these finer grades. The respective averages of this finer grade use for the past 5 years have been 64 percent and 50 percent. Some of this finer grade wool has been used by woolen system mills to make better quality sweaters and coats. The second quarter 60's and finer mill consumption was the largest quarter in 10 years for the worsted system and 18 years for the woolen system. Raw wool used in carpets in the second quarter amounted to 3.2 million pounds, 6.6 percent above the first quarter and 32 percent more than a year earlier. It was the largest quarterly carpet mill consumption in 5

Table 10.—U.S. mill consumption of raw wool, scoured basis

Year	Apparel wool	Carpet wool	Total
1978	102,246	13,009	115,255
1979	106,533	10,513	117,046
1980	113,423	10,020	123,443
1981	127,752	10,896	138,648
1982 ¹	105,005	9,825	114,830
Jan.-Mar. ¹			
1982	31,920	2,576	34,496
1983	31,269	2,981	34,250
Apr.-June ¹			
1982	26,690	2,405	29,095
1983	34,306	3,179	37,485

¹Preliminary.

Compiled from reports of the Bureau of the Census.

years. Reflecting the improved economy, mill consumption of raw wool in 1983 is expected to be 130 million pounds, 13 percent more than last year and the second highest annual mill use in 10 years (table 11).

Imports of wool in second-quarter 1983 were 19.1 million pounds, 18 percent more than the first quarter and 10 percent greater than a year earlier (table 12). Duty-free wool imports were 6.9 million pounds, 22 percent above the first quarter. About 94 percent came from three countries: New Zealand, 70 percent; the United Kingdom, 15 percent; and Argentina, 9 percent. Dutiable

Table 11.—Wool supply and disappearance, clean content

Item	1981	1982	1983 ¹	1984 ¹
<i>Million pounds</i>				
Stocks, Jan. 1	50.6	44.6	46.0	41.7
Production	58.6	56.2	53.1	53.9
Imports	74.3	61.4	63.6	65.0
Diff. unacc.	—	—	10.0	15.0
Total supply	183.5	162.2	172.7	175.6
Mill use	138.6	114.8	130.0	132.0
Exports	0.3	1.4	1.0	1.0
Total use	138.9	116.2	131.0	133.0
Stocks, Dec. 31	44.6	46.0	41.7	42.6

¹Estimated.

Compiled from reports of the Bureau of the Census.

Table 12.—U.S. imports of dutiable and duty-free raw wool for consumption, clean content

Year	Dutiable	Duty-free	Total
<i>1,000 pounds</i>			
1978	27,000	23,404	50,404
1979	20,283	22,047	42,330
1980	30,491	25,992	56,483
1981	48,106	26,146	74,252
1982	39,988	21,433	61,421
Jan.-Mar.			
1982	15,356	5,515	20,871
1983	10,549	5,639	16,188
Apr.-June			
1982	10,798	6,620	17,418
1983	12,216	6,903	19,119

Compiled from reports of the Bureau of the Census.

raw wool imports were 12.2 million pounds, 16 percent more than the previous quarter. About 97 percent came from four countries: Australia, 61 percent; South Africa, 24 percent; New Zealand, 7 percent; and Argentina, 5 percent. The raw-wool content of imported textile products during the second quarter was 35.6 million pounds, 42 percent more than the first quarter (table 27).

U.S. raw wool exports in second-quarter 1983 were 237,500 pounds, clean. About 91 percent went to two countries: the United Kingdom, 60 percent, and Canada, 31 percent. The raw wool content of exported textile products was 13.5 million pounds, 25 percent more than the first quarter (table 28).

Mill Prices Firm

The strong demand for wool in the second quarter is expected to continue through the fall and into the winter. Prices of the territory wools rose as mill demand strengthened in June and July and supplies declined. The finer grades such as 64's rose from \$1.93 to \$2.19 a pound and 62's went from \$1.70 to \$1.86. The medium grades reacted in a similar fashion, 58's from \$1.23 to \$1.38 and 56's from \$1.18 to \$1.29.

The prices of the finer grades of imported wool generally remained steady before the selling season closed at the end of June. Type 70's ranged from \$2.73 to \$2.77, 64's, \$2.52 to \$2.56, and 58's \$2.26 to \$2.32.

The average U.S. farm price in July was 71.4 cents a pound, slightly above the June price of 70 cents (table 13). Since February, farm prices have been the lowest since 1976.

Table 13.—Average U.S. farm prices per pound for shorn wool, grease basis

Month	1980	1981	1982	1983 ¹
<i>Cents</i>				
January	82.1	84.6	73.1	53.2
February	86.8	88.3	72.9	57.7
March	93.5	91.8	63.6	58.4
April	92.2	101.0	83.6	67.4
May	86.6	99.8	76.5	65.5
June	86.5	101.0	68.0	70.0
July	85.8	94.4	77.0	71.4
August	85.5	84.8	64.2	
September	84.7	84.3	56.5	
October	89.4	87.3	70.7	
November	92.1	91.1	54.7	
December	90.9	84.2	55.5	
Weighted season average	88.1	94.5	68.4	

¹Preliminary.

World Overview

Wool Production Up Slightly

World raw wool production for 1982/83 is estimated at 3.58 billion pounds, clean, 0.2 percent above the previous season. The drought in Australia has not had the effect earlier believed. The revised forecast of this season's Australian wool production is 1.55 billion pounds, about 1 percent below 1981/82. The Australian Wool Production Forecasting Committee has forecast their total wool production in 1983/84 at 1.48 billion pounds, about 4 percent below 1982/83, due mainly to the drought's effect on sheep numbers and fleece weight. Estimates from China claim a 3-4 percent increase in 1982/83 production, due to more sheep being available with heavier average fleece. In the Soviet Union, production remained unchanged because an increase in sheepmeat production cancelled out the expansion in sheep numbers arising from better feed supplies.

Despite unchanged wool production, total world wool availability during the 1982/83 season has been about 2.7 percent more than the previous season and is at a 7-year high. Relatively large carryover stocks, 364 million pounds, greasy, have made possible this large supply. Almost two-thirds were stocks held by wool marketing authorities in Australia, New Zealand, and South Africa. The composition of the wool available during the past season has been merino, 39 percent; crossbred 34 percent; and carpet types, 27 percent. Carpet types increased about 5 percent, but merino and crossbred types rose only 2 percent because they were more affected by depressed conditions in Australia and the Soviet Union.

Stockpiles Down

The world wool market improved in the last quarter of the season. Importing countries increased consumption and inventories began to be restocked. In exporting countries, prices tended to be firmer, less support was required from the marketing authorities, and stocks at the end of season were down. Australian wool prices, as reflected in the market indicator (a weighted average index of 11 wool categories), remained rather stable dur-

ing April through June, ranging between 467 and 474. The Australian Wool Corporation was required to purchase about 10 percent of the wool offered, compared with about one-third in the first half of the season. In addition, the corporation's stockpile dropped 8 percent during the last quarter of the season. Most of the demand for merino Australian wool came from Japan, the Soviet Union, the People's Republic of China, and Western Europe.

The New Zealand market indicator ranged between 283 and 294 this spring. The principal consuming areas of New Zealand wool last season were the Far East, the Soviet Union, Iran, and Western Europe. New Zealand wool exports have been 15 percent greater this season than in 1981/82. In the last quarter of the season, the New Zealand Wool Board's stockpile declined 24 percent. The carryin stocks of the 1983/84 season are the lowest in 3 years.

The demand for South African wool was rather light in the last months of the season due to a strengthening of the rand and a continued recession among traditional clients. The market indicator dropped from 500 in April to 496 in May and ended the season at 493. This rather slack wool market was reflected by only 76 percent of the wool offered being sold, compared with 91 percent last season.

MOHAIR

Strong Mohair Market

This year's mohair market has been extremely strong. The spring clip of almost 5 million pounds, clean, has been sold out, leaving an inventory of less than a half million pounds. July prices averaged \$6.75 a pound for kid, \$4.50 for young goat, and \$3.25 for adult. Through mid-August, the drought continued in western Texas and caused the clip to be super fine. The fall clip is forecast to be in excess of 5 million pounds, clean, and is expected to be absorbed by a continued vigorous overseas demand.

U.S. exports in the first 6 months were 4.5 million pounds, 32 percent more than the average of the past 5 years. These mohair exports had a value of \$17.5 million. Three countries took 80 percent: the United Kingdom (62 percent), France and Italy (9 percent each).

Large South African Sales

In South Africa, sales in the first 6 months were 2.7 million pounds, clean, from carryover stocks and 8.6 million, clean, from new production. The fall clip is expected to be above 7.7 million pounds. The weighted average price index rose from 902 at the first sale in mid-February to a plateau of 1,185 and 1,173 in April and May before dropping to 970 in early June. Firm prices are expected to continue this fall, but spinners are reported to be resisting higher prices. Most of the South African mohair was sold to mills in Japan and Western Europe. Recent information indicates that July rains in South Africa may have broken the severe drought there. Goat losses this year from the drought have been estimated at 2 to 3 percent.

The Turkish spring clip was estimated at 8.8 million pounds, greasy, 15 percent less than last year. Low 1982 hair and goat prices caused a reduction of the breeding stock. The USSR, the United Kingdom, and France were the principal buyers of Turkish mohair.

MEASURING THE U.S. COTTON CONTENT OF TEXTILE IMPORTS

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ABSTRACT: In 1982, the United States imported about 1.9 million bales of cotton, on a raw fiber equivalent basis, in the form of textiles. An estimated 29 percent of those bales originated in the United States as cotton and cotton textile exports.

KEYWORDS: Textile imports, raw cotton equivalents, cotton trade

Introduction

U.S. textile imports have grown in recent years and their effects on the U.S. economy are being debated. In 1982, U.S. imports totaled an estimated 1.869 million 480-lb. bales of cotton, on a raw fiber equivalent basis, and this figure is projected to increase to 2.1 million bales by the end of 1983.

It is important to estimate how much of the cotton contained in textile imports is U.S. raw cotton returning as processed products. If a high proportion of U.S. textile imports originate as U.S. cotton exports, the effects of increased textile trade on cotton producers might be slight. However, if U.S. textile imports contain little U.S. cotton, then American cotton producers, as well as America's textile industry, will be negatively affected by an increase in textile imports.

Earlier this year, USDA began estimating the raw cotton equivalent of U.S. textile imports by country of origin (Glade & Lawler). This article extends that study by presenting a refined methodology for estimating the quantity of U.S.-grown cotton returning to this country as textile imports. International trade flows of cotton fabric and other semimanufactured textiles are considered, and results for 1982 are presented.

Method of Estimation

Textile exporting countries can obtain U.S. cotton either by importing raw cotton directly from the United States, or by importing fabric containing U.S. cotton from the United States or other textile and apparel-producing nations. The proportion of U.S. cotton in each major textile exporting country's domestic mill consumption was estimated first using the assumption that each yard of fabric or pound of yarn produced in a given country contains an amount of U.S. cotton equal to the proportion of U.S. cotton in the total cotton supply of that country. In other words, it was assumed that foreign mills comingled U.S. cotton with cotton from other sources without regard to the market destination of the textile product being produced.

Table 14, column 3, lists estimated mill use return ratios for countries identified as major textile sources for the United States. Data from the 1981 crop year were used to approximate the assumed 5- to 6-month lag

between raw cotton procurement and a textile product export. For each country, the proportion of U.S. cotton imports in total mill use was calculated. The resulting mill use return ratios vary widely, ranging between 0.914 for Korea and 0 for numerous cotton exporting countries.

It is more difficult to estimate the amount of U.S. cotton in textile products imported by a country like Hong Kong. Textile trade often involves third countries, with country A producing yarn and fabric for export to B, and B producing fabric and apparel for export to C. The importance of imported cotton fabric to the textile industry of each country was estimated by dividing the quantity of cotton fabric imports by the sum of cotton fabric production plus imports in each country. Data from the International Cotton Advisory Committee were used. These ratios were used to weight the mill use return ratio (column 3, table 14) and the imported fabric return ratio (column 5, table 14) to obtain a weighted average return ratio. As an example, Korea imports only 5.6 percent of its total cotton fabric supply, while Hong Kong imports 55.6 percent of its supply. These weights were transferred to columns 4 and 6 of table 14.

Next, a trade matrix showing woven cotton fabric imports by country of origin for the major textile exporters was constructed. The data came primarily from United Nations Trade Statistics. For most countries, the data covered 1981, although data for Peru, Malaysia, and the Philippines covered 1980. In the U.N. data, Taiwan is not named explicitly, but is included under the heading, "Areas N.E.S." Import data for Taiwan and the People's Republic of China were constructed using export data from other countries, however, neither country is a large textile importer.

An example, using Hong Kong, of how the trade data were used in estimating the imported fabric return ratio is shown in table 15. Listed are the major countries that supplied woven cotton fabric to Hong Kong in 1981, and the value of the exports from each country. Imports of woven cotton fabric from the United States totaled \$14.3 million in 1981, out of total Hong Kong imports of \$626.1 million. In all, \$601.1 million worth of Hong Kong's imports are accounted for.

It was assumed that imports of cotton fabric from the United States were entirely composed of U.S. cotton. For each of the other suppliers, however, a weighted average of U.S. cotton in that country's fabric supply was calculated. For instance, in 1981 Japan imported \$6.5 million worth of cotton fabric from the United States out of total

cotton fabric imports of \$238.2 million. That proportion was multiplied by the ratio of fabric imports to the total fabric supply in Japan, 0.116. Next, the mill use return ratio for Japan was multiplied by the ratio of fabric production to total fabric supply (0.475 X 0.884). These results from columns 2, 3, 4, and 5 of table 15 were summed. The resulting weighted average of the proportion of Japan's fabric supplies composed of U.S. cotton (0.423) was multiplied by the proportion of Hong Kong's

imports of woven cotton fabric from Japan, given in column 1, table 15. The result was placed in column 7 of table 15. The sum of figures in column 7 represents the weighted average of U.S. cotton in Hong Kong's imported fabrics. This figure (0.295) was transferred to column 5 of table 14.

The weighted export return ratio for Hong Kong is shown in column 7 of table 14. It equals the mill use return ratio (0.357) times the ratio of domestic produc-

Table 14.—Export return ratios for U.S. textile imports in 1982

Textile exporting country	Cotton imports from the U.S.	Domestic mill use	Mill use return ratio	Domestic production share of fabric supply	Imported fabric return ratio	Imported fabric share of fabric supply	Weighted export return ratio	Raw cotton equivalent of U.S. imports	U.S. cotton exports returned
	1,000 480-lb bales (1)	(2)	(3)	(4)	Percent (5)	(6)	(7)	1,000 480-lb bales (8)	(9)
Hong Kong	243	680	0.357	0.444	0.295	0.556	0.323	490	158
PRC	847	15,700	.054	.990	.276	.010	.056	282	16
Taiwan	777	1,060	.733	.930	.308	.070	.703	190	134
Pakistan	1	2,240	0	1.000		0	0	105	0
Korea	1,412	1,545	.914	.944	.402	.056	.885	104	92
India	0	5,843	0	1.000		0	0	73	0
Japan	1,626	3,426	.475	.884	.191	.116	.442	67	30
Peru	0	240	0	.757	.793	.243	.193	63	12
Singapore	16	75	.213	.118	.195	.882	.197	50	10
Brazil	0	2,600	0	1.000		0	0	49	0
Thailand	167	546	.306	.978	.299	.022	.306	44	13
Phillipines	58	100	.580	.937	.341	.063	.565	39	22
Indonesia	286	494	.579	.989	.159	.011	.574	35	20
Sri Lanka	1	40	.018					26	5
Macau	0	NA	0					24	0
Mexico	0	620	0					21	0
Domin. Rep.	0	10	0					18	0
Egypt	0	1,332	0					15	0
Canada	167	185	.903					14	13
Columbia	0	220	0					14	0
Haiti	0	10	0					11	0
Romania	0	515	0					10	0
Portugal	54	609	.089					10	1
Italy	106	1,024	.104					9	1
Poland	1	750	0					7	0
France	58	743	.078					7	1
W. Germany	119	745	.160					7	1
El Salvador	1	35	.014					7	0
Total	5,940	41,387					.293	1,791	524
World	6,555	65,900					.29	1,869	542

NA = not available.

Table 15.—Calculation of import fabric return ratio for Hong Kong

Country of origin	Proportion of Hong Kong's woven cotton fabric imports	Proportion of country of origin fabric imports coming from the U.S.	Imported fabric share of fabric supply in country of origin	Country of origin mill use return ratio	Domestic production share of fabric supply in country of origin	(2) X (7) = (8)	(7)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
U.S.	14.3 / 626.1				1.0		0.023
Japan	184.8 / 626.1	(6.5 / 238.2	X	0.116)	+	(0.475 X 0.884) =	0.423 .125
Korea	16.4 / 626.1	(2.7 / 42.6	X	.056)	+	(.914 X .944) =	.866 .023
PRC	250.6 / 626.1	(0	X	.010)	+	(.054 X .990) =	.053 .022
Thailand	7.7 / 626.1	(.1 / 20.5	X	.022)	+	(.306 X .978) =	.299 .004
India	2.2 / 626.1	(0	X	0)	+	(0 X 1.000) =	0 0
Pakistan	6.3 / 626.1	(0	X	0)	+	(0 X 1.000) =	0 0
Singapore	5.3 / 626.1	(2.4 / 145.6	X	.882)	+	(.213 X .118) =	.040 0
Malaysia	9.0 / 626.1	(.3 / 48.9	X	.685)	+	(.366 X .315) =	.119 .002
Taiwan	84.5 / 626.1	(.8 / 60.0	X	.070)	+	(.733 X .930) =	.683 .092
W. Europe	20.0 / 626.1	(120.9 / 2,255.7	X	.353)	+	(.143 X .647) =	.111 .004
Total	601.1						.295

tion in the total fabric supply (0.444), plus the imported fabric return ratio (0.295) times the ratio of imported fabric in the total fabric supply (0.556). For Hong Kong, the weighted export return ratio equals 0.323.

As a final step, the export return ratio (0.323) was applied to the estimate of U.S. imports of raw cotton in the form of textiles and apparel from Hong Kong in 1982. Of the approximately 490,000 bales of cotton in textile imports from Hong Kong, it is estimated that 158,000 bales originated in the United States.

Results

The weighted export return ratios are given for 13 countries that accounted for over 85 percent of total U.S. cotton textile imports in 1982. Trade data were not available to calculate imported fabric return ratios for every country, and only one weighted export return ratio differed significantly from the simpler mill use return ratio.

Results for Peru highlight the importance of examining textile trade data. Peru is self-sufficient in cotton production, but about one-fourth of its fabric supplies are imported, according to U.N. trade data. Most of Peru's cotton textile imports came from Canada, a country with a high mill use return ratio. Accordingly, an estimated one-fifth of Peru's cotton textile exports to the United States originated as U.S. cotton.

In contrast, Brazil, India, and Pakistan import neither raw cotton nor cotton fabrics, according to available data. Consequently, their return ratios are zero, and U.S. imports of textiles from these countries contain no U.S.-produced cotton.

Only about 2 percent of Thailand's fabric supplies are imported, and the largest suppliers are Hong Kong and Japan. Singapore relies heavily on fabric imports to supply its total fabric needs, and most of its imports come from Hong Kong, Japan, and Malaysia, countries that import U.S. cotton. But Singapore also records a sizable amount of trade with China, a country with a very low mill use return ratio, so only about one-fifth of Singapore's exports to the United States were comprised of U.S. cotton.

Over one-half of domestic mill use of cotton in Indonesia and the Philippines is supplied by exports from the United States. Neither country imports very much fabric, so about three-fifths of U.S. textile imports from those countries are made from our own cotton.

China is now the world's largest cotton producer and consumer. In 1981, even though the United States exported nearly 850,000 bales to that country, cotton imports from the United States represented little more than 5 percent of domestic mill use in China. Consequently, of about 280,000 cotton equivalent bales of U.S. textile imports from China, perhaps less than 20,000 bales were grown in the United States.

Korea has the largest weighted export return ratio of those calculated. Over 90 percent of Korea's domestic mill use is comprised of U.S. cotton, and most Korean imports of cotton fabric come from Japan. Accordingly, about 90 percent of U.S. cotton textile imports from Korea are made of U.S. cotton.

Taiwan and Japan import only modest amounts of cotton fabric, so most of the U.S. cotton they use is acquired through raw cotton imports. The weighted export return ratio for Taiwan is about 0.70 and for Japan about 0.44.

For the remaining countries, the mill use return ratio was used as a proxy of the overall weighted export return ratio. For all the countries listed in table 14, the average export return ratio was about 0.29. Since these countries provided over 90 percent of all U.S. cotton textile imports in 1982, it is not expected that the ratio would change appreciably if calculations were made for all countries in the world. Of the 1.9 million raw cotton equivalent bales of U.S. textile imports in 1982, about 540,000 originated as U.S. cotton or textile exports—the rest having been grown elsewhere.

Implications

The average export return ratio of 0.29 does not mean that each raw fiber equivalent bale of textile imports supplants seven-tenths of a bale of demand for U.S. cotton. Without textile imports, U.S. retail prices for textiles would rise and domestic consumption of textile products would fall. Therefore, the offset from textile imports is less than seven-tenths, and is probably less than one-half. Furthermore, if the United States were to erect more stringent trade barriers, foreign retaliation could cause U.S. exports of cotton and cotton textiles to decline by amounts large enough to cause a net reduction in consumption of U.S. cotton.

Since 1982, the overall U.S. export return ratio has probably declined. U.S. exports fell to less than 5.3 million bales during the 1982/83 season, and U.S. cotton fabric imports are expected to rise to 2.1 million raw fiber equivalent bales in 1983. However, during 1983, a greater proportion of U.S. textile imports are coming from Hong Kong, Taiwan, Japan, and Korea than was the case in 1982, and this will help offset the decline. Assuming the export return ratio falls to about 0.27 in 1983 and 1984, about 570,000 bales of U.S. cotton will have been affected during the 1982/83 season, and about 610,000 will be affected during 1983/84.

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WORLD OUTLOOK FOR APPAREL WOOL: 1983/84

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ABSTRACT: This article explains the major factors affecting world wool prices, and demonstrates that Australian auction prices are a significant determinant of U.S. farm prices. Australian prices should strengthen in 1983/84 (July-June), and Australian marketing policy will be an important determinant of market prices realized worldwide.

KEYWORDS: Outlook and situation: wool, wool prices, demand, stabilization

U.S. Farm Prices Follow Australian Prices

Because the United States ranks among the world's largest agricultural producers and traders, U.S. demand, supply and policy changes can exert significant influences upon the international trading environment for a wide range of agricultural commodities. However, the U.S. wool industry is small by world standards and Australia is the dominant world producer and exporter. In 1981, for instance, sheep numbers and wool production in the United States comprised only 1.2 percent and 1.8 percent of the respective world totals. By contrast, Australia generally produces around one-quarter of the world wool clip and its exports account for 45 percent of total world shipments of wool (excluding wool on skins), and a higher proportion of the trade in merino and apparel wools.

Because the U.S. wool industry is relatively small, wool prices in the United States are determined largely by overall world market trends with domestic developments having only a small impact. Given the size of the Australian wool industry, however, prices determined in Australia will influence prices in the United States.

Moreover, through its reserve price scheme for wool, Australia uses its market power to influence short run fluctuations in wool prices. The scheme aims to stabilize auction prices around levels consistent with the changing competitive position of Australian wool in world markets (Wool Industry Act, 1972). Under the scheme, the Australian Wool Corporation (a statutory marketing authority) buys all wool offered at auction (75 percent or more of the clip) for which commercial bids do not reach the relevant minimum reserve prices that are set annually. The wool purchased is resold later when demand and prices are more buoyant. Similar price stabilization schemes exist in New Zealand and in South Africa. Reserve prices in these two countries tend to follow those set in Australia, certainly at the beginning of wool selling seasons (July-June). The reserve prices also reflect anticipated market trends for the specific wool types produced in the three countries.

While this paper draws heavily on publications issued by the Australian Bureau of Agricultural Economics, the views expressed are those of the author and do not necessarily reflect the endorsement of that organization.

The following equation provides some evidence that Australian wool prices are an important determinant of U.S. prices.

$$\begin{aligned} \text{PWUS} = & 107.65 + 0.56\text{PWAUS} - 0.06\text{CHSS} + 0.09\text{PS} \\ & (1.10) (15.78) (2.64) (2.17) (1.12) \\ & -109.29\text{RATIO}; R^2 = 0.92; \text{D.W.} = 1.43. \end{aligned}$$

Where the data are for 1960/61 to 1982/83, "t" statistics are shown in parentheses, and where the symbols are defined as follows:

- PWUS = average U.S. farm price for wool, October to September years, in U.S. cents per lb. greasy;
- PWAUS = Australian auction price, July-June years, plus the U.S. tariff, in U.S. cents per lb., greasy;
- CHSS = change in stocks held by the major wool exporting countries, in metric tons clean basis;
- PS = U.S. price of polyester, October-September years, in cents per lb.;
- RATIO = ratio of real GNP growth in the 7 major OECD countries to the rate of real growth in the United States.

The results confirm the earlier judgements concerning the relative importance of alternative determinants of U.S. wool prices. Under the market conditions of 1982/83, a 10-percent lift in Australian auction prices would have caused a 9-percent increase in U.S. farm prices for wool, other things constant. However, a 10-percent rise in U.S. manmade fiber prices, and a growth of real U.S. GNP 1 percentage point higher than achieved would together have lifted farm prices by no more than 3 percent. The statistical properties of the equation (D.W. statistic in the indeterminate range) indicate the results should be treated cautiously. However, there is little doubt that Australian auction prices are an important determinant of farm prices in the United States.

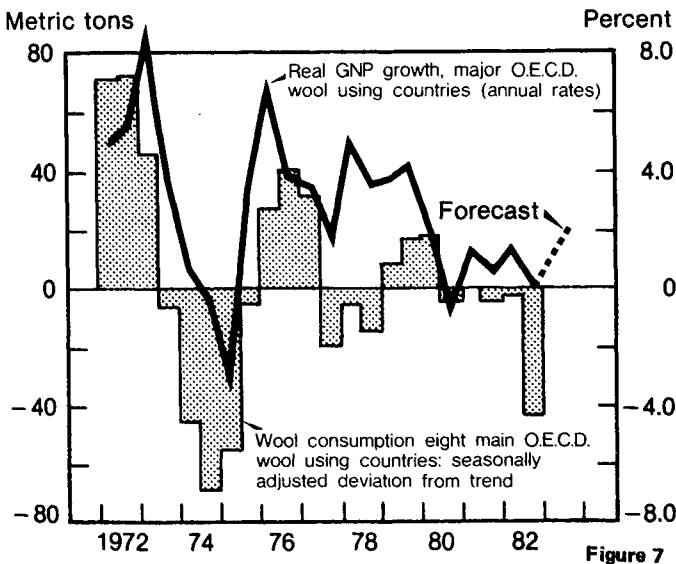
Given Australia's price-influencing position in the world wool market, and its significant influence on U.S. farm prices, this outlook relies on prospective movements in Australian auction prices. As measured in terms of

the U.S. dollar, the average Australian auction price in 1983/84 is forecast to rise 3 percent. World economic growth is expected to increase but world availability of wool is also likely to rise slightly. The forecast rests critically upon two assumptions concerning exchange rates. These are that the values of the Australian dollar relative to the U.S. dollar and relative to a basket of currencies of Australia's major wool customers will both remain close to their average June 1983 levels (\$A 1.00 = U.S. 0.88). Any sizable depreciation or appreciation of the U.S. dollar relative to the Australian dollar would mean respectively higher or lower market prices measured in U.S. currency than indicated in this paper.

Economic Growth the Key

Variations in economic conditions, such as GNP growth rates and interest rates, are key determinants of short run fluctuations in wool demand and prices (figure 7). Apparel and other textiles are "soft durables," useful over varying time periods, depending partly on the size of consumers' "wardrobe stocks" which, in turn, are related to income levels. Moreover, one-half of the world's wool is consumed in the developed market economies. In these countries, consumption of apparel and textiles generally would be higher than required to meet primary needs. Consequently, consumers can postpone purchases of these items when economic conditions are uncertain or unfavorable, and can restock in better times.

Wool Consumption and Real GNP Growth



In addition, the transport-manufacturing-wholesaling-retailing system adds a great deal of value to raw wool, and the physical flow of wool from auction, say in Australia, to final consumers in the Northern Hemisphere can take around a year. Thus, the value of raw and semiprocessed stocks in the wool pipeline is large, so that even small variations in interest rates can cause large absolute changes in the costs of holding stocks. Fluctuations in economic activity also affect wool demand indirectly through their impacts on overall fiber demand as well as by influencing prices for oil and, hence, the prices of manmade fibers.

Economic Outlook

The rate of world economic growth fell in 1982, but an improvement is expected in the year ahead. While the forecasts of real GNP growth rates vary somewhat^{2, 3}, world economic growth in 1983 is expected to be around 2 percent, up from only 0.5 percent in 1982. In the developed countries, real GNP should grow by as much as 2 percent in 1983 and by 3.3 percent in 1984, compared with a marginal decline in 1982. Economic growth prospects in these countries and elsewhere rest importantly on developments in the United States.

In the United States, the economic recovery is well underway and real GNP is expected to increase by around 3 percent in 1983. The rate of U.S. economic growth should rise again in 1984 and growth rates should improve gradually in foreign countries. Current forecasts suggest only a relatively small improvement in Japanese growth over 1983/84. However, the latest forecasts by the Organization for Economic Cooperation and Development (OECD) suggest a slowly increasing rate of economic growth through 1984 in Japan, and also in the major European wool consuming countries (France, West Germany, Italy, and the U.K.).

The centrally planned economies use large quantities of wool, with the Soviet Union being the world's largest consumer. Real economic growth in these countries in 1983 is forecast at 2.5 percent, up from 1 percent last year². In the USSR, further increases in farm production in 1983 should restrict import requirements for food and feeds, thereby reducing pressures on Soviet hard currency reserves. This factor, along with the decline in Eastern Europe's hard currency debt in 1982, should help maintain wool imports. However, Poland is a relatively substantial wool importer, and its debt problems persist. Reflecting these difficulties, Australian wool brokers suspended dealings with Polish buyers on a number of occasions over the past year.

Wool Textile Activity Turning Up

In line with the downturn in economic growth, world consumption of virgin wool fell 1 percent in 1982. The decline was concentrated in the market economies, as consumption in the centrally planned group increased. Wool use in Poland fell 23 percent while the United States, West Germany, and Italy all recorded double-digit declines (12-18 percent).

Nevertheless, the wool textile industry has shown some signs of resurgence since late 1982. In the United States, mill use in January-June 1983 was 13 percent higher than a year earlier and indications point to a similar rise in consumption for the year. Wool consumption and wool top production in Japan, and the major EC countries remained below year-earlier levels into the early months of 1983, but mill use has generally improved from a low point last October.

The strengthening of economic growth anticipated in 1983/84 should boost wool demand. Retail sales in early fall 1983 will be a critical determinant of the timing of the expected strengthening of auction demand and prices. Processors in the Northern Hemisphere will need to buy wool from Southern Hemisphere exporters in October-March 1983/84 to meet retail demand in the northern fall-winter of 1984/85. If retailers and processors perceive improved trading conditions by early fall, and expect these to continue, auction prices should be firming around September-October.

Competitive Fibers To Provide Little Strength to Wool Prices

World cotton demand should strengthen in 1983/84, while world production is expected to fall, so that ending stocks should also decline. The tightening of the world cotton supply-demand situation during 1983/84 should contribute to strengthening wool prices this season. For manmade fibers, stronger economic growth should lift fiber demand and could also lead to some firming of oil prices. With stronger demand, higher input prices could flow into somewhat stronger manmade fiber prices while still enabling manufacturers to lift capacity utilization rates. In the United States, the earlier decline in prices appears to have halted by mid-1983. In Japan and Taiwan, prices also seem to have stabilized at reduced levels. However, polyester staple prices continued to fall in Italy and West Germany, while in the United Kingdom prices fell again in June after rising in May.

Thus, the market remains weak overall, despite positive developments in the United States. In addition, a further, although small, increase in world plant capacity has been indicated for 1983. Consequently, total fiber demand would need to rise markedly to create any appreciable upward pressure on prices of manmade fibers.

Wool Availability Up Marginally In 1983/84

Total world availability of raw wool is expected to rise around 1 percent in 1983/84 as lower production should be offset by higher beginning season stocks, mostly in Australia (table 16). Recorded stocks of raw wool owned by commercial processors in market economies at the end of December 1982 were virtually unchanged from a year before. Since then, these stocks have remained close to year-earlier levels overall. However, the stocks held by the Australian Wool Corporation (A.W.C.) had almost doubled between the end of June 1982 and the end of January 1983, to around 1.1 million bales (average weight around 350 lbs. greasy).

Corporation stocks subsequently fell to 930,000 bales at the end of June 1983. The reduction reflected a halt to the previous declining trend in demand, relatively low offerings of first-hand growers' wool later in the season, and an expected supply shortfall through 1983 due to drought. Despite this decline, A.W.C. stocks at the end of June 1983, were still around 80 percent higher than the year before. Beginning 1983/84 stocks also increased appreciably in South Africa, but stocks in New Zealand and Argentina fell.

Largely because of the Australian drought, world wool production in 1983/84 is forecast to fall 1 percent. The drought appears to have ended in the eastern states of Australia. Nevertheless, Australian sheep numbers on March 31, 1983, had declined by 2.6 percent to 133.2 million head. No significant recovery in the flock is expected through March 1984 and sheep in former drought areas had already lost fleece potential by fall. Consequently, the official forecast puts the 1983/84 Australian clip at 1.48 billion lbs. greasy, down 4.4 percent.

In other countries, the Soviet sheep flock fell slightly during 1982 but improved feed supplies should result in higher wool production in 1983/84. Due to poor seasonal conditions, the New Zealand clip should remain

Table 16.—World sheep numbers, wool production, disappearance, and price

Item	1979/ 80	1980/ 81	1981/ 82	1982/ 83 ¹	1983/ 84 ²
	<i>Million</i>				
Sheep numbers ³	1,032	1,058	1,069	1,088	1,098
Australia	134	136	134	138	133
USSR	143	144	142	142	142
New Zealand	62	64	69	70	71
	<i>Million pounds, greasy</i>				
Wool production	6,166	6,285	6,365	6,359	6,305
Australia	1,563	1,543	1,579	1,546	1,483
USSR	1,054	1,023	1,063	1,038	1,045
New Zealand	787	840	800	816	816
	<i>Million pounds, clean</i>				
Supply/disappearance					
Beginning stocks	573	564	622	699	760
Supply stocks ⁴	207	220	267	364	NA
Commercial stocks ⁵	366	344	355	335	NA
Production	3,479	3,527	3,585	3,581	3,545
Total availability	4,052	4,091	4,207	4,280	4,305
Disappearance	3,488	3,469	3,508	3,520	NA
Ending stocks	564	622	699	760	NA
	<i>Cents per pound, greasy</i>				
Average price ⁶					
Australia	123	135	132	117	121
United States	87	91	80	63	NA

¹Preliminary. ²Forecast; exchange rate of \$A1.00 = \$U.S.O.88.
³Generally April-June census dates for the first year shown; January 1 for USSR and USA. ⁴Carryover, plus intervention stocks in Australia, New Zealand, Argentina, South Africa, Uruguay, and UK. ⁵Owned by processors in main OECD processing countries. ⁶July-June; average auction price in Australia, average farm price in USA. NA = not available.

Commonwealth Secretariat, IWTO, IWSG, Wool Statistics, various issues; BAE, Quarterly Review of the Rural Economy, 5(3), August 1983, USDA, Cotton and Wool Outlook and Situation, various issues.

unchanged, while wool production in Argentina and South Africa is likely to decline. In the United States, the 10-percent drop in the sheep flock from 1982 also indicates lower wool production this year.

Australian Marketing Policy

Measured in terms of the U.S. dollar, the Australian minimum reserve price for wool (market indicator basis) for 1983/84 was increased by 4 cents per lb. over its post-devaluation level (table 17). With relatively stable exchange rates, this rise should contribute to a strengthening of U.S. wool prices over levels in spring-early summer 1983. However, given the expected expansion in world wool demand in 1983/84 and the increases in public intervention stocks in Australia and South Africa, sales from these stocks could limit upward movements in market prices to below the levels attainable otherwise.

However, the A.W.C. is not likely to be a substantial net seller in 1983/84 unless demand growth is particularly strong, indicating potential for higher than currently forecast prices. In the past, the proportionate margin between prices realized in the market and the minimum reserves has been a significant determinant of the corporation's purchases and sales¹. Since the introduction of the minimum reserve component of the scheme in

Table 17.—Minimum reserve and auction prices for wool: Australia, July-June years

Wool group (micron)	Minimum reserve prices ¹			Auction prices ²			1983-1984 first sale ⁴
	1982-83 ³		1983-84 ⁴	1982-83 ³		Last sale	
	Pre-devaluation	Post devaluation		Pre-devaluation	Post devaluation		
<i>Cents per pound, clean</i>							
Combing							
19	234	228	243	247	252	256	256
20	224	218	228	233	226	226	229
21	215	210	216	224	215	215	219
22	212	206	210	215	210	210	211
23	204	198	202	206	203	204	205
24	194	189	193	197	195	199	196
25	180	175	178	188	185	192	189
27	153	149	151	158	156	159	161
30	125	122	123	126	124	125	126
Carding							
Merino	133	130	131	133	135	134	135
Crossbred	101	98	99	101	101	104	103
Market indicator ⁵	185	180	184	189	186	188	189

¹Under Australia's Reserve Price Scheme for wool, the Australian Wool Corporation purchases all wool offered at auction for which commercial bids do not reach the minimum reserve prices, thereby maintaining auction price at no less than the minimum reserves indicated. ²Depending on the year, 75 percent or more of the Australian clip is sold at auction. ³The Australian dollar was devalued on March 8, 1983, by 10 percent and, as a result, minimum reserves, in Australian currency terms, were lifted by 7.6 percent. ⁴Converted to Australian dollars at \$US1.00 = \$AO.88. ⁵Weighted average of 121 wool types.

Australian Wool Corporation.

1974, this margin has averaged 10 percent, and on average, the corporation has not been a substantial net seller until market prices have exceeded the minimum reserve by 15-16 cents per lb., clean (figure 8).

Net Wool Purchases by Wool Corporation and Market-Reserve Price Margin

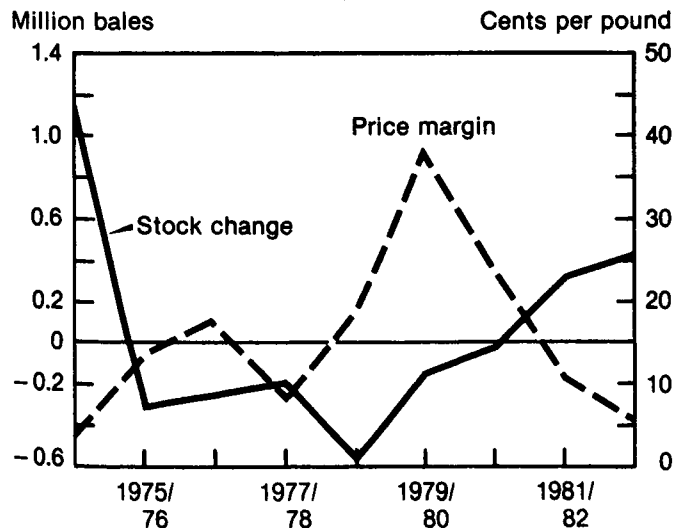


Figure 8

Recently, the corporation has been a net seller at a market price-minimum reserve price margin below 15-16 cents per lb. However, A.W.C. stocks include drought-affected wools which are less readily saleable than other qualities. The 1983/84 auction offering will again contain drought-affected wools, particularly over the first half of

the season, when wool grown under drought conditions earlier in 1983 will still be flowing to market. Consequently, the corporation's stocks could rise over July-December 1983. The corporation is likely to become a net seller in the ensuing 6 months, given a progressive strengthening of demand and prices for wool through 1983/84.

The corporation's price support purchases in the first half of 1983/84 are likely to be concentrated on the middle to finer micron groups in the Australian clip. Wool grown under drought conditions tends to be finer than normal, thereby lifting production of fine wools. Also, prices for wools 24 micron and finer at the first sales for 1983/84 did not rise as much as the increases in the minimum reserve prices set for the season. Another factor pointing to a weakening of prices for "finer" wools relative to prices for "broader" wools is that Australian wool supplies will be higher in 1983/84, while supplies in New Zealand will be lower than in 1982/83.

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Table 18.—Cotton: Supply and disappearance, by type, United States

Year beginning August 1	Supply				Disappearance			Difference unaccounted ⁴	Ending stocks July 31
	Beginning stocks August 1 ¹	Production ²	Imports	Total	Mill consumption ³	Exports	Total		
<i>1,000 480-pound net weight bales⁵</i>									
<i>All kinds</i>									
1981	2,668	15,646	26	18,340	5,264	6,567	11,831	123	6,632
1982	6,632	11,963	21	18,616	5,512	5,257	10,769	69	7,916
1983 ⁷	7,916	⁸ 7,810	30	15,756	5,925	5,315	11,240	84	4,600
<i>Upland</i>									
1981	2,614	15,566	18	18,198	5,216	6,555	11,771	140	6,567
1982	6,567	11,864	14	18,445	5,457	5,243	10,700	74	7,819
1983 ⁷	7,819	⁸ 7,732	25	15,576	5,850	5,300	11,150	89	4,515
<i>Extra-long staple⁶</i>									
1981	54	80	8	142	48	12	60	-17	65
1982	65	99	7	171	55	14	69	-5	97
1983 ⁷	97	⁸ 78	5	180	75	15	90	-5	85

¹Compiled from Bureau of the Census data and adjusted to an August 1 480-pound net weight basis. Excludes preseason ginnings. ²Includes preseason ginnings. ³Adjusted to August 1-July 31 marketing year. ⁴Difference between ending stocks based on Census data and preceding season's supply less disappearance. For upland cotton, this difference primarily reflects an increase of an estimated 1 percent in average bale weights due to moisture absorption once cotton is ginned and begins to flow through marketing channels. Additional moisture is absorbed by cotton moving in export channels. For ELS cotton, this difference reflects, in part, reporting discrepancies for stocks, mill consumption, and exports. ⁵Factors used to convert running bales to equivalent 480-pound net weight bales for carryover and consumption of domestic cotton are based on the relationship between 480 pounds and the gin weight of a running bale, raised by 1 percent (moisture factor). ⁶Includes American-Pima, Sea Island, and foreign grown ELS cotton. ⁷Preliminary and estimated. ⁸Crop Reporting Board report of August 11, 1983.

Table 19.—Cotton: Supply and disappearance of all kinds; by months, United States¹

Date	Supply				Disappearance						
	Beginning stocks ²			Total	Ginnings ³	Imports	Total	Mill consumption ⁴	Exports	Total	Ending stocks ⁵
At mills	In public storage ⁶	Other ⁷									
<i>1,000 480-pound net weight bales</i>											
1982/83											
August	865	5,495	272	6,632	472	2	7,106	448	360	808	6,298
September	788	5,259	251	6,298	1,122	2	7,422	435	370	805	6,617
October	700	5,521	396	6,617	3,919	1	10,537	455	308	763	9,774
November	639	7,919	1,216	9,774	3,668	3	13,445	448	399	847	12,598
December	663	10,644	1,291	12,598	1,825	0	14,423	404	395	799	13,624
January	731	11,619	1,274	13,624	750	1	14,375	444	462	906	13,469
February	819	11,640	1,010	13,469	207	0	13,676	454	386	840	12,836
March	813	10,666	1,357	12,836		1	12,837	531	513	1,044	11,793
April	827	10,177	789	11,793		0	11,793	473	640	1,113	10,680
May	834	9,227	619	10,680		0	10,680	509	484	993	9,687
June ⁸	816	8,329	542	9,687		0	9,687	503	458	961	8,726
July ⁸	794	7,779	153	8,726			8,726	409			
Season	865	5,495	272	6,632	11,963	21	18,616	5,512	5,257	10,769	7,916

¹Compiled from Bureau of the Census data and adjusted to a 480-pound net weight basis. ²August stocks adjusted to an August 1 basis and exclude preseason ginnings. ³August data include preseason ginnings. ⁴Adjusted to a calendar month. ⁵Supply less disappearance. End of season stocks adjusted by Bureau of the Census data. Differences primarily reflect varying bale weights. ⁶Adjusted to 480-pound bales by use of monthly conversion factors for mill stocks. ⁷Primarily cotton on farms and in transit. Estimated by subtracting public storage and mill stocks from total stocks. ⁸Preliminary.

Table 20.—Fiber prices: Landed Group B mill points, cotton prices, and manmade staple fiber prices at f.o.b. producing plants, actual and estimated raw fiber equivalent

Calendar year	Cotton ¹		Rayon ²		Polyester ³	
	Actual	Raw fiber equivalent ⁴	Actual	Raw fiber equivalent ⁴	Actual	Raw fiber equivalent ⁴
<i>Cents per pound</i>						
1982	68	76	85	88	77	80
1983						
January	69	76	78	81	72	75
February	69	77	78	81	72	75
March	75	83	78	81	71	74
April	75	83	79	82	71	74
May	76	84	79	82	71	74
June	80	89	79	82	72	75
July	81	89	82	85	72	75

¹SLM-1-1/16" at Group B Mill points, net weight. ²1.5 and 3.0 denier, regular rayon staple. ³Reported average market price for 1.5 denier polyester staple for cotton blending. ⁴Actual prices converted to estimated raw fiber equivalent as follows: cotton, divided by 0.90, rayon and polyester, divided by 0.98.

Agricultural Marketing Service and Trade reports.

Table 21.—Cotton: Strict low middling, spot prices in designated U.S. markets, loan rates, and prices received by farmers for upland cotton

Year beginning August 1	Average spot market prices per pound (net weight) ¹						Price per pound received by farmers for upland cotton (net weight) ²
	15/16 inch	1 inch	1-1/32 inches	1-1/16 inches	1-3/32 inches	1-1/8 inches	
<i>Cents</i>							
1981/82	49.92	54.13	58.28	60.48	60.89	62.07	³ 54.00
1982/83							
August	50.86	54.82	58.21	60.38	60.76	61.71	52.80
September	49.81	53.89	56.71	58.98	59.36	60.10	55.50
October	49.12	53.14	56.35	58.58	58.97	59.62	59.80
November	48.87	52.80	55.98	58.20	58.57	59.09	59.90
December	50.14	54.04	57.40	59.65	60.02	60.90	57.30
January	50.07	54.08	57.88	60.16	60.53	61.56	56.00
February	50.85	54.81	59.42	61.72	62.09	63.43	56.40
March	53.81	57.93	63.74	66.05	66.43	67.95	59.90
April	53.38	57.35	67.64	65.33	65.72	66.88	59.70
May	55.28	59.37	64.52	66.88	67.31	68.59	61.70
June	58.26	62.42	68.33	70.74	71.20	73.11	61.10
July	58.18	62.30	67.86	70.27	70.73	72.65	56.50
Average	52.39	56.41	61.17	63.08	63.47	64.63	³ 57.60
Loan rate	48.73	52.68	55.73	57.73	58.13	58.38	⁴ 57.08

¹Spot market loan rates and prices are for cotton with micronaire readings of 3.5 through 4.9. ²Excludes domestic allotment payments, price support and diversion payments. ³Weighted average. ⁴SLM 1-1/16" average location.

Agricultural Stabilization and Conservation Service, Agricultural Marketing Service, and Statistical Reporting Service.

Table 22.—Raw cotton equivalent of U.S. imports for consumption of cotton manufactures

Year and month	Yarn, thread, and woven fabric						Primarily manufactured products			
	Yarn	Sewing thread, crochet, knitting yarn	Woven fabric		Total		Pile fabrics and mfrs. ²	Table damask and mfrs.	Bed clothes and towels ³	Gloves, hosiery, and hdkf.
			100 percent cotton	Blends ¹	Weight	Bales				
			1,000 pounds		1,000 bales ⁸		1,000 pounds			
1981	23,048	1,035	296,607	47,179	367,869	766.4	6,484	475	56,460	23,113
1982	27,264	1,244	218,619	41,518	288,645	601.3	6,342	481	64,060	22,652
1982										
January	2,171	119	25,028	4,604	31,922	66.5	478	35	4,878	1,832
February	953	91	21,331	4,075	26,450	55.1	357	15	4,404	1,832
March	1,990	136	16,937	3,669	22,732	47.4	311	43	5,580	1,772
April	1,476	128	16,747	3,450	21,801	45.4	434	21	4,608	1,662
May	3,281	169	19,257	3,266	25,973	54.1	664	53	7,096	2,218
June	2,901	168	16,344	3,550	22,963	47.8	716	17	6,374	2,266
July	2,384	62	14,604	2,834	19,884	41.4	498	10	4,108	1,347
August	2,800	75	16,834	3,677	23,386	48.7	803	41	6,204	2,355
September	2,670	68	17,479	3,434	23,651	49.3	528	17	5,298	2,096
October	1,691	56	16,370	3,212	21,329	44.4	382	26	4,894	2,287
November	2,645	85	19,960	3,032	25,722	53.6	524	107	5,614	1,794
December	2,302	87	17,728	2,715	22,832	47.6	647	96	5,002	1,191
1983										
January	3,670	60	23,065	5,434	32,229	67.1	548	48	6,788	2,711
February	1,720	119	20,733	4,065	26,637	55.5	368	16	5,862	1,893
March	2,716	91	20,626	3,776	27,209	56.7	427	33	6,928	1,788
April	1,423	132	20,037	4,631	26,223	54.6	306	37	5,053	1,850
May	3,262	102	21,500	4,730	29,595	61.7	834	43	5,138	2,142
June	3,303	116	20,277	4,578	28,274	58.9	725	31	5,368	2,267

Primarily manufactured products							Total					
Other wearing apparel ⁴	Lace fabric and articles ⁵	Household and clothing articles ⁶	Misc.- products ⁷	Floor covering	Total		Weight	Bales	Weight	Bales		
					Weight	Bales						
					1,000 pounds		1,000 bales ⁸		1,000 pounds		1,000 bales ⁹	
1981	480,864	4,730	10,483	8,861	2,561	594,031	1,237.6	961,900	2,004.0			
1982	487,867	4,046	10,628	⁹ 10,053	2,408	⁹ 608,537	1,267.8	⁹ 897,182	1,869.2			
1982												
January	34,052	265	940	918	155	43,553	90.7	75,475	157.2			
February	35,369	362	800	769	228	44,136	92.0	70,586	147.1			
March	32,739	327	1,031	801	114	42,718	89.0	65,450	136.4			
April	26,761	328	664	638	194	35,310	73.6	57,111	119.0			
May	39,442	382	1,018	636	223	51,732	107.8	77,705	161.9			
June	51,590	442	879	1,027	208	63,519	132.3	86,482	180.2			
July	46,021	270	860	636	242	53,992	112.5	73,876	153.9			
August	60,537	315	969	854	258	72,336	150.7	95,722	199.4			
September	46,366	364	802	1,088	193	56,752	118.2	80,403	167.5			
October	39,251	317	882	931	134	49,104	102.3	70,433	146.7			
November	42,206	338	1,048	937	246	52,814	110.0	78,536	163.6			
December	33,533	336	735	818	213	42,571	88.7	65,403	136.3			
1983												
January	49,331	368	920	⁹ 1,052	531	⁹ 62,297	129.8	⁹ 94,526	196.9			
February	47,043	353	895	⁹ 963	489	⁹ 57,882	120.6	⁹ 84,519	176.1			
March	48,694	446	914	⁹ 1,161	569	⁹ 60,960	127.0	⁹ 88,169	183.7			
April	40,079	448	764	⁹ 958	556	⁹ 50,051	104.3	⁹ 76,274	158.9			
May	47,948	423	1,035	⁹ 1,156	560	⁹ 59,279	123.5	⁹ 88,874	185.2			
June	59,754	446	1,069	⁹ 1,479	626	⁹ 71,765	149.5	⁹ 100,039	208.4			

¹Includes tapestry and upholstery fabrics, tire cord fabrics, and cloths in chief value cotton containing other fibers. ²Includes velvets and velveteens, corduroys, plushes and chenilles, and manufactures of pile fabrics. ³Includes blankets, quilts, bedspreads, sheets and pillow cases. ⁴Includes knit and woven underwear and outerwear (collars and cuffs, shirts, coats, vests, robes, pajamas, and ornamented wearing apparel). ⁵Includes nets and nettings, veils and veillings, edging, embroideries, etc., and lace window curtains. ⁶Includes braids (except hat braids) tubing, labels, lacing, wicking, loom harness, table and bureau covers, polishing and dust cloths, fabric with fast edges, cords, and tassels, garters, suspenders and braces, corsets and brassieres etc. ⁷Includes belts and belting, fish nets and netting, and coated, filled or waterproof fabrics. ⁸480-pound net weight bales. ⁹Does not include quantities in the TSUSA 706 luggage categories. The raw fiber equivalent quantities for May-December 1982 was 6,609 thousand pounds. For January-June 1983 these quantities are 1,271, 1,824, 1,433, 991, 879, and 1,362 thousand pounds, respectively.

Compiled from reports of the Bureau of the Census.

Table 23.—Raw cotton equivalent of U.S. exports of domestic cotton manufactures

Year and month	Yarn, thread, twine, and woven fabric						Manufactured products				
	Yarn	Sewing thread, crochet, darning and embroidery cotton	Twine and cordage	Woven fabric		Total		House, furnishings			
				Standard constructions and tire cord ¹	Other ²	Weight	Bales	Knit fabrics	Blankets, spreads, pillow cases, and sheets	Towels	Other ³
1,000 pounds						1,000 bales ⁸		1,000 pounds			
1981	21,800	15,199	1,073	75,401	52,346	165,817	345.5	6,632	20,789	8,886	2,413
1982	17,981	11,277	822	71,570	13,186	114,838	239.3	4,720	14,092	6,222	3,241
1982											
January	1,347	1,087	39	5,078	1,170	8,722	18.2	451	1,012	338	124
February	1,713	741	79	5,375	1,001	8,909	18.6	388	932	456	192
March	1,343	1,137	64	6,027	1,214	9,785	20.4	463	1,271	351	205
April	1,357	1,322	65	5,887	1,273	9,904	20.6	402	1,432	947	154
May	2,178	860	62	7,250	1,326	11,677	24.3	479	1,148	430	153
June	1,981	734	106	7,250	1,854	11,925	24.8	574	1,268	674	297
July	829	1,374	58	7,803	831	10,895	22.7	395	1,115	588	432
August	994	1,409	95	4,056	975	7,529	15.7	360	1,051	373	370
September	1,293	885	46	5,609	1,024	8,857	18.5	419	1,148	578	494
October	1,952	813	85	5,977	1,098	9,924	20.7	330	1,360	553	266
November	1,562	484	81	5,995	723	8,845	18.4	213	1,155	637	216
December	1,432	431	42	5,263	697	7,866	16.4	246	1,200	297	338
1983											
January	1,796	1,314	55	5,589	878	9,633	20.1	106	881	537	46
February	1,720	506	36	4,101	891	7,254	15.1	148	1,028	310	46
March	2,727	656	116	4,441	779	8,718	18.2	203	1,194	446	37
April	1,862	1,044	73	4,451	801	8,231	17.2	221	723	647	81
May	1,795	1,064	71	3,324	566	6,820	14.2	471	698	481	59
June	1,643	1,156	113	4,095	640	7,647	15.9	252	727	560	53
Manufactured products											
Wearing apparel			Other household & clothing articles ⁶		Floor covering	Industrial products ⁷	Total				
Knit ⁴	Other ⁵					Weight	Bales	Weight	Bales		
		1,000 pounds				1,000 bales ⁸		1,000 pounds		1,000 bales ⁸	
1981	60,333	62,603	22,319			17,505	201,480	419.8	367,300	765.2	
1982	34,713	45,321	15,918			14,277	138,506	288.6	253,342	527.8	
1982											
January	2,792	3,467	1,701			1,011	10,896	22.7	19,617	40.9	
February	4,061	4,929	1,317			1,314	13,589	28.3	22,498	46.9	
March	3,311	5,142	1,544			1,204	13,492	28.1	23,277	48.5	
April	3,347	4,831	1,512			1,163	13,788	28.7	23,692	49.4	
May	3,108	4,386	1,617			1,449	12,770	26.6	24,446	50.9	
June	3,050	4,189	1,830			1,345	13,225	27.6	25,150	52.4	
July	2,305	3,265	1,025			1,307	10,432	21.7	21,327	44.4	
August	2,099	3,232	1,195			1,075	9,756	20.3	17,285	36.0	
September	2,713	3,746	1,215			1,311	11,625	24.2	20,482	42.7	
October	2,766	3,179	1,147			1,285	10,887	22.7	20,811	43.4	
November	2,633	1,950	943			841	8,587	17.9	17,432	36.3	
December	2,528	3,005	872			972	9,459	19.7	17,325	36.1	
1983											
January	2,830	2,792	2,046	614		879	10,732	22.4	20,365	42.4	
February	2,556	3,198	1,719	878		753	10,638	22.2	17,892	37.3	
March	2,991	3,460	897	1,094		968	11,290	23.5	20,008	41.7	
April	2,785	3,558	967	1,494		915	11,390	23.7	19,621	40.9	
May	2,006	3,490	947	1,265		1,012	10,430	21.7	17,250	35.9	
June	1,799	3,866	1,058	1,658		1,089	11,062	23.1	18,709	39.0	

¹Includes fabrics, tire cord and cloth for export to the Philippines to be embroidered and otherwise manufactured and returned to the United States. ²Includes tapestry and upholstery fabrics, table damask, pile fabrics and remnants. ³Includes curtains and draperies, house furnishings not elsewhere specified. ⁴Includes gloves and mitts of woven fabric. ⁵Includes underwear and outerwear of woven fabric, handkerchiefs, and wearing apparel containing mixed fibers (corsets, brassieres, and girdles, garters, armbands and suspenders, neckties and cravats). ⁶Includes canvas articles and manufactures, braids and narrow fabrics, elastic webbing, waterproof garments, and laces and lace articles. ⁷Includes rubberized fabrics, bags, and industrial belt and belting. ⁸480-pound net weight bales.

Compiled from reports of the Bureau of the Census.

Table 24.—Manmade fiber equivalent of U.S. imports for consumption of manmade fiber manufactures

Year and month	Tops, yarn, thread, and woven fabric							Primarily manufactured products	
	Sliver tops and roving	Yarns thrown or plied ¹	Yarns spun	Sewing thread and hand-work yarns	Rayon tire fabric including cord fabrics	Woven fabric	Total	Wearing apparel	
								Knit ²	Not knit
<i>1,000 pounds</i>									
1981	3,736	4,793	23,479	2,854	277	95,382	130,521	184,704	252,162
1982	2,724	6,642	26,470	2,324	1,087	93,335	132,582	193,087	292,224
1982									
January	448	622	1,877	169	28	7,740	10,884	12,464	24,013
February	320	143	1,408	208	65	6,583	8,727	11,222	22,724
March	207	434	1,648	191	29	6,818	9,327	10,548	21,744
April	118	326	2,114	231	2	6,788	9,579	8,565	16,823
May	82	477	2,774	196	0	8,739	12,268	15,317	25,132
June	138	520	2,438	239	1	9,143	12,479	21,755	31,280
July	348	330	2,050	115	80	6,581	9,504	17,801	25,780
August	192	611	2,847	176	135	10,438	14,399	26,414	34,499
September	423	618	2,566	147	106	9,087	12,947	21,522	26,856
October	68	515	2,337	231	84	7,413	10,648	20,041	20,546
November	209	1,080	2,280	241	280	7,693	11,783	16,642	21,174
December	171	966	2,131	180	277	6,312	10,037	10,796	21,653
1983									
January	363	871	2,725	234	169	8,835	13,197	17,107	28,010
February	336	828	2,169	274	169	7,144	10,920	15,867	23,703
March	688	1,198	2,925	263	251	9,118	14,443	15,030	23,074
April	437	533	2,799	223	228	10,768	14,988	15,329	21,297
May	526	721	3,693	240	245	11,064	16,489	21,733	25,917
June	552	914	3,693	333	72	13,046	18,610	27,446	31,433
Primarily manufactured products									
	Handkerchiefs	Laces and lace articles ³	Narrow fabrics ⁴	Knit fabric	Floor covering	Other manufactures ⁵	Total	Total manufactured imports	
<i>1,000 pounds</i>									
1981	192	4,497	8,703	2,149		56,148	508,555	639,076	
1982	1,162	4,782	10,089	2,284		⁶ 61,749	⁶ 565,377	⁶ 697,959	
1982									
January	81	343	761	220		4,418	42,300	53,184	
February	108	277	821	141		4,052	39,345	48,072	
March	82	295	847	243		4,650	38,409	47,736	
April	65	213	943	187		3,767	30,563	40,142	
May	90	452	1,158	161		5,303	47,613	59,881	
June	128	529	1,060	214		6,595	61,561	74,040	
July	145	384	774	159		5,586	50,629	60,133	
August	138	536	931	242		5,732	68,492	82,891	
September	106	561	801	236		5,749	55,831	68,778	
October	87	465	606	101		5,353	47,199	57,847	
November	55	368	865	242		5,070	44,416	56,199	
December	77	359	522	138		5,474	39,019	49,056	
1983									
January	89	372	1,343	183	892	⁶ 5,444	⁶ 53,440	⁶ 66,637	
February	94	423	1,239	145	1,028	⁶ 5,815	⁶ 48,314	⁶ 59,234	
March	86	407	1,069	127	1,364	⁶ 6,254	⁶ 47,411	⁶ 61,854	
April	78	381	1,091	212	1,271	⁶ 5,588	⁶ 45,247	⁶ 60,235	
May	105	441	1,114	115	1,443	⁶ 6,209	⁶ 57,077	⁶ 73,566	
June	189	476	958	178	1,839	⁶ 8,505	⁶ 71,024	⁶ 89,634	

¹Not included in these data are quantities of imported textured non-cellulosic yarn not over 20 turns per inch. ²Includes gloves, hosiery, underwear, outerwear, and hats. ³Includes veils and veilings, nets and nettings, lace window curtains, edging, insertings, flouncings, allover, etc., embroideries, and ornamented wearing apparel. ⁴Includes braids (except hat braids), fabrics with fast edges not over 12 inches wide, garters, suspenders, braces, tubing, cords, tassels, gill nets, webs, seines, and other nets for fishing. ⁵Not elsewhere classified. ⁶Does not include quantities in the TSUSA 706 luggage categories. The raw fiber equivalent quantity for May-December 1982 was 109,137 thousand pounds. For January-June 1983 these quantities are 12,905, 12,561, 14,461, 12,490, 13,041, and 15,711 thousand pounds, respectively.

Compiled from reports of the Bureau of the Census.

Table 25.—Manmade fiber equivalent of U.S. exports of domestic manmade fiber manufactures

Year and month	Tops, yarn, thread, and woven fabric					Primarily manufactured products			
	Silver tops, and roving ¹	Yarns spun	Sewing thread and handwork	Tire cord and tire cord fabric	Woven fabric ²	Total	Hosiery	Underwear and night-wear	Outer wear
<i>1,000 pounds</i>									
1981	11,046	45,693	5,522	48,155	208,478	318,894	4,896	16,970	98,783
1982	6,730	28,169	5,270	27,854	132,569	200,589	3,813	12,884	58,537
1982									
January	811	2,111	433	3,126	9,117	16,197	293	985	5,405
February	995	2,936	367	2,703	10,130	17,132	342	1,134	6,476
March	712	2,554	561	2,794	11,484	18,104	305	1,090	5,486
April	336	2,153	483	2,108	10,588	15,669	245	1,156	5,809
May	375	2,427	446	3,059	12,110	18,417	328	1,208	5,433
June	506	3,561	706	2,522	13,359	20,654	447	1,192	5,496
July	957	1,882	311	2,311	10,664	16,125	464	971	4,544
August	334	2,728	343	1,976	9,317	14,698	359	987	4,097
September	571	1,939	372	1,890	11,292	16,063	313	1,199	4,969
October	397	1,859	550	2,051	12,029	16,886	276	1,172	4,500
November	503	1,928	381	1,438	11,529	15,778	240	934	2,301
December	233	2,091	317	1,876	10,350	14,866	201	856	4,021
1983									
January	336	2,333	462	1,081	9,245	13,457	241	915	4,566
February	430	2,450	293	1,509	8,697	13,380	257	928	4,238
March	373	2,384	546	1,848	10,397	15,548	217	983	5,222
April	314	2,513	332	1,616	10,839	15,613	245	1,155	4,373
May	527	2,351	588	1,910	9,072	14,447	272	946	4,248
June	201	2,731	495	1,655	9,066	14,147	274	908	4,574
<i>Primarily manufactured products</i>									
	House furnishings	Knit or crocheted	Narrow fabrics ³	Floor covering	Other manufactures ⁴	Total	Total manufactured exports		
<i>1,000 pounds</i>									
1981	84,189	21,673	26,210		66,116	318,839	637,733		
1982	65,904	15,645	26,614		54,566	237,960	438,551		
1982									
January	4,537	1,142	2,816		3,527	18,705	34,902		
February	6,039	978	1,737		4,513	21,219	38,351		
March	6,706	1,474	1,803		4,749	21,613	39,717		
April	4,673	1,023	2,623		4,761	20,290	35,959		
May	7,905	1,307	2,083		5,325	23,589	42,007		
June	7,202	1,193	2,755		5,273	23,557	44,211		
July	4,397	1,219	1,989		4,218	17,802	33,927		
August	4,218	1,395	2,945		4,434	18,436	33,134		
September	5,511	1,600	1,743		4,460	19,795	35,858		
October	4,526	1,903	2,614		4,992	19,982	36,868		
November	6,043	1,373	1,764		4,109	16,763	32,542		
December	4,147	1,038	1,742		4,205	16,209	31,075		
1983									
January	834	938	1,792	9,843	4,508	23,639	37,096		
February	921	995	1,428	9,679	4,611	23,056	36,436		
March	1,125	1,536	1,930	10,739	5,647	27,401	42,949		
April	1,208	1,240	2,026	11,614	4,790	26,652	42,265		
May	975	1,258	2,226	11,019	4,789	25,733	40,180		
June	1,049	1,037	2,146	10,522	4,960	25,470	39,616		

¹Includes products made from waste. ²Includes pile and tufted fabric such as corduroy. ³Includes ribbons, trimmings, and braids (except hat braids). ⁴Not elsewhere classified.

Compiled from reports of the Bureau of the Census.

Table 26.—Manmade fiber production and capacity⁴

Fiber	1982		1983				1984					Projected 1985 capacity	Average annual change 1983-85	
	Year	1Q	2Q	3Q	4Q	Year	1Q	2Q	3Q	4Q	Year			
	<i>Million pounds</i>												<i>Percent</i>	
Grand total ^{1, 2} all fibers	12,065	2,987	2,978	2,975	2,978	11,918	3,008	3,037	3,040	3,051	12,136	12,270	+1.4	
Capacity	7,942	2,090	2,311											
Production	66	70	78											
Percent														
Total staple ²	5,388	1,326	1,329	1,329	1,332	5,316	1,346	1,363	1,363	1,370	5,442	5,503	+1.7	
Capacity	3,758	979	1,107											
Production	70	74	83											
Percent														
Total filament ^{1, 2}	6,677	1,661	1,649	1,646	1,646	6,602	1,662	1,674	1,677	1,681	6,694	6,767	+1.2	
Capacity	4,184	1,111	1,204											
Production	63	67	73											
Percent														
Polyester total	4,404	1,079	1,080	1,076	1,071	4,306	1,074	1,076	1,076	1,077	4,303	4,330	+0.3	
Capacity	3,168	815	920											
Production	72	76	85											
Percent														
Staple	2,776	677	678	678	678	2,711	683	688	688	689	2,748	2,774	+1.2	
Capacity	1,955	492	559											
Production	70	73	82											
Percent														
Filament	1,628	402	402	398	393	1,595	391	388	388	388	1,555	1,556	-1.2	
Capacity	1,213	323	361											
Production	75	80	90											
Percent														
Nylon total	2,933	719	716	715	717	2,867	725	732	734	736	2,927	2,970	1.8	
Capacity	1,927	508	551											
Production	66	71	77											
Percent														
Staple	987	246	247	246	247	986	255	263	265	267	1,050	1,069	+4.1	
Capacity	685	196	235											
Production	69	80	95											
Percent														
Filament	1,946	473	469	469	470	1,881	470	469	469	469	1,877	1,901	+0.5	
Capacity	1,242	312	316											
Production	64	66	67											
Percent														
Olefin total	1,281	331	335	339	343	1,348	348	352	354	358	1,412	1,454	+3.9	
Capacity	723	205	224											
Production	56	62	67											
Percent														
Staple	273	67	67	68	68	270	70	72	72	74	288	304	+6.1	
Capacity	138	38	43											
Production	51	57	64											
Percent														
Filament	1,008	264	268	271	275	1,078	278	280	282	284	1,124	1,150	+3.3	
Capacity	585	167	181											
Production	58	63	68											
Percent														
Acrylic staple	838	208	208	209	210	835	210	211	210	211	842	842	+0.8	
Capacity	624	160	178											
Production	74	77	86											
Percent														
Non-cellulosic non-glass total ¹	9,485	2,345	2,346	2,347	2,348	9,386	2,365	2,378	2,382	2,389	9,514	9,626	+1.3	
Capacity	6,459	1,693	1,878											
Production	68	72	80											
Percent														
Staple	4,874	1,198	1,200	1,201	1,203	4,802	1,218	1,234	1,235	1,241	4,928	4,989	+1.9	
Capacity	3,402	886	1,015											
Production	70	74	85											
Percent														
Filament ¹	4,611	1,147	1,146	1,146	1,145	4,584	1,147	1,144	1,147	1,148	4,586	4,637	+0.6	
Capacity	3,057	807	863											
Production	66	70	75											
Percent														
Rayon staple	510	143	144	142	144	573	143	144	142	144	573	573	0	
Capacity	355	93	92											
Production	70	65	64											
Percent														
Acetate filament	320	80	81	80	81	322	80	81	80	81	322	322	0	
Capacity	195	50	62											
Production	61	63	77											
Percent														
Glass filament	1,687	419	407	406	405	1,637	420	434	436	437	1,727	1,749	+3.4	
Capacity	899	245	³ 270											
Production	53	58	66											
Percent														

¹Includes spandex capacity and production not shown. ²Includes rayon filament and acetate staple capacity and production not shown.

³Estimated.

Compiled from Textile Organon.

Table 27.—Raw wool content of United States imports for consumption of wool manufactures¹

Year and month	Noils	Wastes ⁶	Tops and advanced wool	Yarns	Woven fabrics ²	Wool blankets ³
<i>1,000 pounds</i>						
1981	12,299	8,233	326	4,720	27,783	400
1982	7,174	4,569	466	7,239	25,633	315
1982						
January	808	574	69	555	1,628	12
February	480	382	25	634	1,843	13
March	1,064	543	103	715	2,643	10
April	702	389	25	680	2,629	21
May	429	445	83	951	3,419	25
June	591	562	111	593	3,487	14
July	424	303	1	650	2,368	9
August	527	317	14	776	2,814	21
September	388	215	5	459	1,763	34
October	625	315	10	380	1,174	86
November	503	309	12	479	959	34
December	633	215	8	367	906	36
1983						
January	467	399	5	413	2,023	47
February	657	349	12	616	1,829	25
March	908	489	73	574	2,532	23
April	930	556	19	810	2,587	20
May	780	450	18	470	2,341	42
June	995	683	87	600	3,919	33
Wearing apparel						
	Knit	Other than knit ⁴	Other manufactures ⁵	Carpets and rugs	Total	
<i>1,000 pounds</i>						
1981	22,789	18,098	902	18,076	113,626	
1982	25,649	20,714	839	19,642	112,240	
1982						
January	775	816	74	1,632	6,943	
February	1,011	769	66	1,267	6,490	
March	829	732	92	1,595	8,326	
April	1,065	937	99	1,368	7,915	
May	1,569	1,009	64	1,764	9,758	
June	2,768	2,006	76	1,692	11,900	
July	3,192	2,345	68	1,543	10,903	
August	4,644	4,020	53	1,912	15,098	
September	3,482	3,237	64	1,352	10,999	
October	2,974	2,247	62	1,799	9,672	
November	2,285	1,682	70	1,756	8,089	
December	1,055	914	51	1,962	6,147	
1983						
January	1,435	1,363	119	1,972	8,243	
February	740	1,027	80	2,205	7,540	
March	1,027	1,163	75	2,399	9,263	
April	1,018	1,215	92	2,275	9,522	
May	2,248	1,724	93	2,377	10,543	
June	4,068	2,559	134	2,410	15,488	

¹Includes manufactures of mohair, alpaca, and other wool-like specialty hair. ²Includes pile fabric and manufactures, tapestry and upholstery goods press and billard cloths. ³Includes carriage and automobile robes, steamer rugs, etc. ⁴Includes laces, lace articles, veils and veillings, nets and nettings, when reported in pounds. ⁵Includes knit fabrics in the piece and miscellaneous manufactures not elsewhere specified. ⁶Not including rags.

Compiled from reports of the Bureau of the Census.

Table 28.—Raw wool content of United States exports of domestic wool manufactures¹

Year and month	Noils & wastes ²	Tops and advanced wool	Yarns	Woven fabrics	Wool ² blankets	Wearing apparel knit
<i>1,000 pounds</i>						
1981	537	2,641	994	1,652	88	2,031
1982	1,069	4,283	663	1,297	47	1,762
1982						
January	6	119	123	87	8	547
February	91	200	90	162	2	122
March	117	380	40	128	3	125
April	95	291	74	106	5	128
May	76	435	56	101	3	142
June	103	560	141	108	7	138
July	36	357	34	102	5	74
August	67	359	22	181	2	114
September	35	501	46	88	4	173
October	161	342	28	56	3	101
November	96	317	3	75	3	28
December	186	422	6	103	2	70
1983						
January	47	211	16	55	3	110
February	31	262	38	38	2	154
March	231	333	21	108	2	151
April	234	342	27	120	2	171
May	292	375	33	104	4	121
June	247	186	22	129	4	62
	Wearing apparel other than knit	Felts	Other manufactures ³	Carpets and rugs	Knit fabrics	Total
<i>1,000 pounds</i>						
1981	1,945	294	1,729	201	211	12,332
1982	1,131	235	1,173	180	107	11,945
1982						
January	71	15	176	26	4	1,185
February	81	27	91	5	15	887
March	70	21	76	15	22	995
April	83	9	76	22	3	892
May	91	16	88	18	7	1,032
June	262	15	173	12	29	1,549
July	70	2	109	6	3	798
August	113	44	95	15	3	1,013
September	104	16	92	7	6	1,072
October	65	1	80	7	7	852
November	33	31	47	37	7	675
December	88	38	70	10	1	995
1983						
January	59	7	69	3,217	36	3,830
February	38	12	44	2,380	2	3,001
March	39	27	72	2,981	6	3,970
April	47	26	54	4,328	1	5,353
May	51	12	68	2,879	35	3,975
June	59	41	94	3,367	2	4,212

¹Includes manufactures of mohair, alpaca, and other wool-like speciality hair. ²Not including rags. ³Census Bureau's Schedule B classification designated manufactures, n.e.c.

Compiled from reports of the Bureau of the Census.

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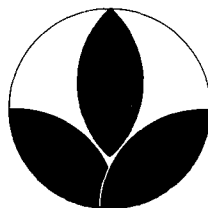
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