Price Support Programs for Wool and Mohair

John V. Lawler and Robert Skinner
(202) 786-1840

Wool and mohair have been declining industries in the United States for 40 and 25 years, respectively. Sheep inventories are one-fifth of their mid-1940's level, and Angora goat numbers have declined by nearly two-thirds since the mid-1960's. The drop occurred as the U.S. textile industry replaced wool and mohair with manmade fibers. Reduced consumption of lamb and mutton also contributed as fewer sheep were available to produce wool. Per capita consumption of lamb and mutton dropped from over 7 pounds in the 1940's to 1.4 pounds in 1988. Similarly, wool's share of domestic fiber use fell from 10 percent in 1950 to 2 percent in 1988.

Despite significantly lower stock numbers—11 million head in 1988, compared with 56 million in 1942—sheep are raised in all States, with about 70 percent of the total in the Rocky Mountains, Texas, and California. Wool from these areas is called "territory" wool and makes up the finer grades, meaning the fibers have smaller diameters. The finer grades are used in making high-quality, high-value clothing. Wool from sheep in the Midwest and Eastern States is called "fleece" wool, and most of it consists of the medium grades. Fleece wool goes into sweaters, coats, and blankets. The coarser, thicker diameter grades used in carpeting are not produced in this country and must be imported.

Most of the revenue from raising sheep comes from the sale of meat. Only about one-third of the cash receipts (including price support payments) result from the sale of wool *(table 1)*. Hence, changes in raw wool prices have a relatively minor effect on a producer's decision to change flock size or wool production. The decline in lamb and mutton consumption by Americans has had a greater effect. Consumption of lamb and mutton in the late 1980's, as a percentage of total meat consumption, was one-fourth the relative consumption of lamb meat during the first few years following World War II.

Price and performance competition between wool and manmade fibers, overall economic activity, and raw wool price variability are all important factors influencing the demand for wool. Widespread consumer acceptance of manmade textiles—such as nylon, polyester, and acrylic—for apparel and floor covering has limited the demand for wool. The relative price stability and uniform quality of these manmade fibers make them attractive to textile mills. Also, since two-thirds of the wool used by U.S. mills is imported, currency fluctuations and changes in foreign wool production and demand can cause substantial swings in U.S. wool prices.

The two major end-uses of wool purchased by domestic mills are apparel and carpet. Apparel wool includes the fine- and medium-grade fibers that are primarily used to make apparel yarns and fabrics. Two wool textile processes, the woolen and worsted systems, each account for half of the apparel wool used. The worsted system uses the finer wool grades to produce fabric for expensive suits and other high-value items. The woolen system uses the medium grades to produce sweaters, tweed suits, winter coats, and blankets. Carpet wools are the coarser, imported fibers used in carpets and rugs. About 8 to 10 percent of the wool used by U.S. mills is made into floor coverings.

Unlike wool, which is a secondary product of sheep and lamb production, Angora goats are raised specifically for

Table 1. Only One-Third of Sheep Producers' Total Receipts Comes From Wool

Item	1982	1983	1984	1985	1986	1987
	Dollars per female sheep					
Producer receipts	47.20	46.89	58.24	66.16	67.12	73.05
Meat	33.14	30.86	38.15	46.12	45.59	53.16
Wool	6.28	6.72	8.81	6.84	7.35	7.62
Wool support payments[1]	7.78	9.31	11.28	13.20	14.18	12.27
Producer expenses	48.39	43.03	40.90	39.27	43.27	44.66
Variable[2]	28.53	29.25	29.47	29.40	28.43	28.59
Fixed[3]	19.86	13.78	11.43	9.87	14.84	16.07
Receipts less cash expenses	-1.19	3.86	17.34	26.89	23.85	28.39
	Percent					
Wool payments as a percent of wool receipts	55	58	56	66	66	62
Wool receipts as a percent of total receipts	30	34	34	30	32	27

[1]Includes price support payments for unshorn lambs. [2]Includes labor, feed, and miscellaneous expenses. [3]Includes taxes, insurance, and interest.

The authors are agricultural economists with the Crops Branch, Commodity Economics Division.

their fleece. Mohair, the shorn hair of the Angora goat, is a specialty fiber with a relatively high price. Eighty-two percent of the Angora goats in the United States are raised in Texas, mainly in the Edwards Plateau region in the southwestern part of the State. New Mexico and Arizona rank a distant second and third. Altogether, the United States accounts for nearly 30 percent of world mohair production. South Africa is also a major mohair-producing country, as is Turkey to a lesser extent. All three nations export almost all of their production. The major buyers are European and Far Eastern mills.

Mohair is used almost entirely in apparel, and thus its demand is strongly influenced by clothing trends. Mohair is a desirable textile fiber because of its luster, resilience, wrinkle resistance, durability, and feel. The finer grades are mostly used in summer-weight clothes and sweaters. The coarser grades go into coats and suits.

Price Support Programs

Wool has received Federal price support since 1947 and mohair since 1949. During the late 1940's and early 1950's, wool and mohair prices were supported using Government loan programs. Producers were offered nonrecourse loans at the support rate. If market prices were below this level at the end of the loan period, producers could forfeit their wool and keep the loan proceeds. *(Program terms are explained in the Glossary.)* Market prices were below support rates during this time, so the Commodity Credit Corporation (CCC) ended up with a lot of wool. Congress abandoned the loan programs in 1954 when Government-owned stocks of wool reached a level equal to half of a year's production.

The National Wool Act of 1954 authorized price support for wool and mohair by means of loans, purchases, payments, or other operations. From the start, direct payments have been used. The change to supporting wool and mohair through payments rather than

loans allowed market prices to fall below the support price. The support price-direct payment method was a forerunner of the target price-deficiency payment concept implemented for grains and cotton in the 1970's.

The method of computing wool and mohair payments differs from the procedure used to calculate crop deficiency payments, which equal a fixed amount per unit of production. Instead, payments for wool and mohair increase as the sales value of the producer's fibers rises *(see box)*. The aim is to encourage production of higher quality, and therefore higher value, wool and mohair and to improve their marketing potential.

Changes in the Support Price

Since 1955, the major legislative changes in the wool and mohair programs have centered on how support prices are computed. From 1955 through 1965, they were set by the Secretary of Agriculture. During that time, the support price for shorn wool remained constant at 62 cents per pound. The law required mohair to be supported at between 85 and 115 percent of the rate at which shorn wool was supported. This resulted in mohair support prices ranging from 70 to 76 cents.

The Food and Agriculture Act of 1965 introduced a formula for determining the shorn wool support price. The formula adjusted the 1965 support price by the percentage change in the index of prices paid by all farmers for production inputs during the 3 most recent years, compared with that index during 3 base years, 1958-60. There was no adjustment in the formula for changes in the amount of wool produced per sheep. The use of the formula resulted in a slow rise in support prices during the late

Understanding Support Payments

Wool and mohair producers receive Government support in the form of direct payments. Determining the amount of this support is a multistep process involving both USDA and producers. A hypothetical example of two farmers selling shorn wool may illustrate how these payments are made.

USDA calculates the national support price for shorn wool using a formula specified by law. The first part of the formula utilizes a parity-index ratio:

$$\frac{\text{average parity index for the 3 previous years}}{\text{average parity index for 1958-60}}$$

This is used to provide a current level of purchasing power, considering the changes in prices over the past three decades. The index includes prices paid by farmers for commodities, services, interest, taxes, and farm wage rates. This ratio is multiplied by 62 cents, the support price in 1965, to give a support rate adjusted to current price levels. For 1988 and 1989, this figure is then multiplied by 76.4 percent. In 1988, the support price for shorn wool equaled $1.78 per pound and in 1989, $1.77.

The payment rate is based on the percentage needed to bring the national average return received by producers up to the support price. The 1988 farm price for shorn wool was $1.38 per pound. USDA calculates the payment rate by subtracting the farm price ($1.38) from the support price ($1.78), then dividing that amount by the farm price. In 1988, the payment rate for shorn wool was 0.29. This means a producer would receive 29 cents in the form of a Government support payment for every $1.00 of greasy wool marketed. (Greasy wool has been neither cleaned nor scoured).

Since 1985, USDA has capped the per-pound sales value on which payments can be made. For 1985-88, that cap has been set at four times the national average price.

For example, farmer Johnson has 100 sheep, from which he obtained 800 pounds of greasy wool last year. Selling this to his local cooperative, he received $1,104 ($1.38 per pound). To receive his support payment, he took his receipts to USDA's local Agricultural Stabilization and Conservation Service office. They calculated his payment by multiplying the payment rate, 0.29, by the value of the wool he sold, $1,104, yielding $320.

Farmer Smith also got 800 pounds of greasy wool from his 100 sheep last year. However, since the wool was of a finer grade, it sold for $2,400 ($3.00 per pound). His support payment equaled $696, 29 percent of $2,400. The amount Smith received was larger than Johnson's payment because of the higher value of Smith's wool.

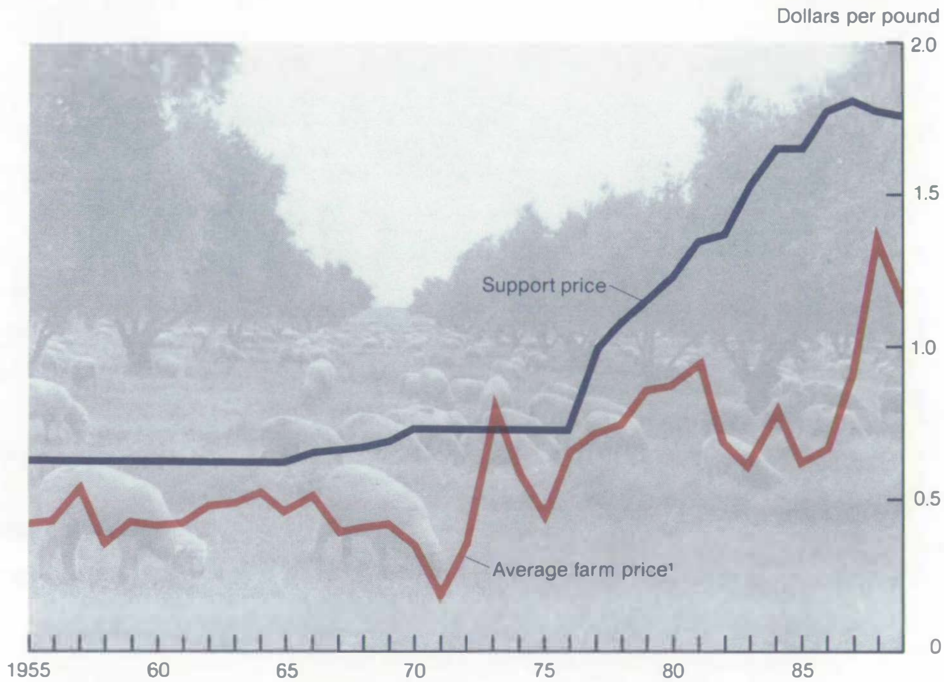
1960's. By 1970, they had reached 72 cents a pound for wool and 80.2 cents for mohair.

With the gap between growing support prices and lower market prices widening each year *(figure 1)*, the agricultural acts of 1970 and 1973 abandoned the formula. Instead, both wool and mohair support prices were fixed at 1970's level through 1976.

The Food and Agriculture Act of 1977 returned to the formula, setting the shorn wool support price for 1977-81 at 85 percent of the amount calculated by the formula. The Agriculture and Food Act of 1981 revised this computation for 1982-85, basing the shorn wool support price on 77.5 percent of the amount indicated by the formula. The Food Security Act of 1985 again set the percentage at 77.5 for 1986-90. Recent legislation lowered it to 76.4 percent for 1988 and 1989.

Beginning in 1977, the support price for mohair was again set at a level between 85 and 115 percent of the rate for shorn wool. The support price has been established at the minimum—85 percent—since 1977, except for 1981 through 1984, when it was supported at 100 percent.

Figure 1. Market Prices for Shorn Wool Have Consistently Been Below Support Prices



[1]Average price received by producers. 1989 estimated.

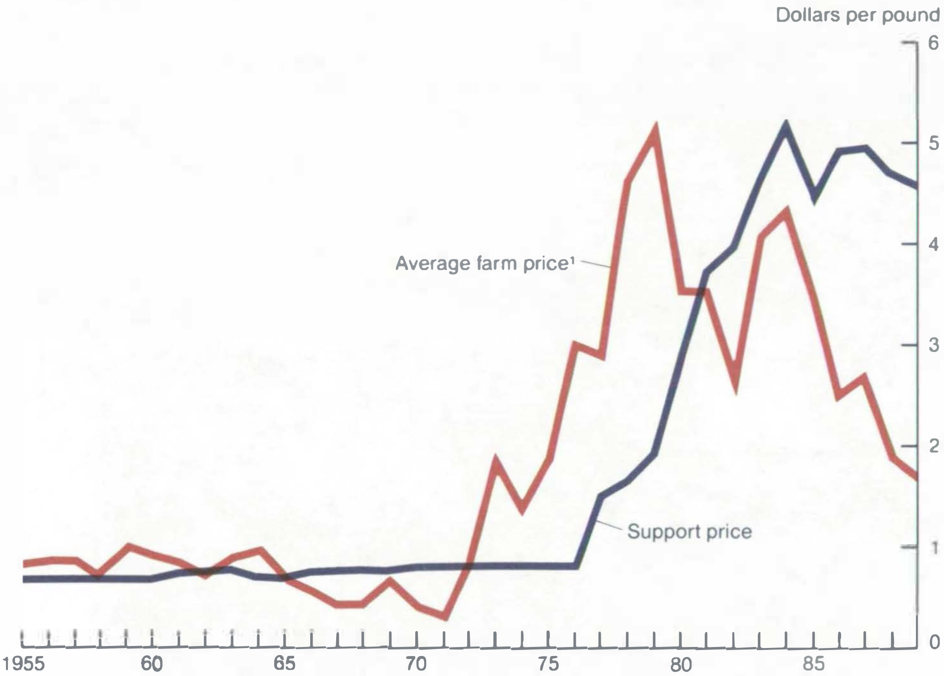
Effects of Programs on Producers

The objective of the National Wool Act is to encourage production of wool at prices that will assure a viable domestic industry. Wool production depends on the expected profitability of raising sheep relative to the next best alternative, usually cattle or field crops. Sheep profitability depends on wool prices, wool support payments, lamb and sheep prices, and production costs. Because only about 30 percent of the annual income from a sheep operation comes from wool, a 10-percent increase in wool receipts would raise operators' income only 3 percent. Thus, large changes in the expected price for wool would be necessary to elicit modest changes in sheep production and wool output.

Because of these unique features of wool production, market prices would be similar with or without the wool program. As a result, producers receive almost the full benefit of the support payments. There are two reasons why this happens. First, and foremost, U.S. wool prices depend greatly on foreign wool prices. The extra output caused by the wool program tends to replace imported wool, rather than drive down U.S. prices. Second, wool demand responds more to price changes than does wool production. This means it takes only a small drop in the market price to raise demand enough to absorb the extra production caused by large support payments.

The mohair program has not had as large a cumulative effect on producers as the wool program has had. The value of mohair rose during the mid- and late 1970's and for 9 years farm prices remained above support levels *(figure 2)*. However, since 1981, farm prices have been below the support price. Compared with no program, it has encouraged production, lowered farm prices, raised producer receipts, and increased mohair exports.

Figure 2. Mohair Prices Rose During the 1970's



¹Average price received by producers, 1989 estimated.

Impact on Consumers

The effect of the wool program on consumers is negligible. The small size of the domestic wool market relative to the world market and the substantial volume of U.S. wool imports suggest that domestic wool prices are more related to world wool prices than to support payments. The additional production caused by support payments probably has only a small, long-term effect on U.S. wool prices and likely causes domestic wool to replace imported wool in U.S. mills. However, to the extent that the higher output causes a short-term drop in U.S. prices, textile mills benefit.

The mohair program, on the other hand, has greater benefits for consumers. This is because changes in U.S. production affect both domestic and world mohair prices. Since 1981, the mohair support price has exceeded market levels, causing greater production than if the price support program did not exist. The higher output pushed down mohair prices, enabling processors and mills to buy more at lower prices.

The effect on consumers of any decline in raw wool and mohair prices caused by the program is lessened because textile products are highly processed. A typical wool sport coat selling for $120 may contain only 4 pounds of raw wool having a farm value of about $3. A mohair sweater selling for $150 may contain only a pound of raw mohair, with a farm value of $4. Because they account for so little of final product value, changes in raw fiber prices are indiscernible to the average American customer.

Effects on Taxpayers

However, as taxpayers, Americans bear the cost of Government expenditures for the programs. These expenditures are primarily a transfer of income from taxpayers to wool and mohair producers. Total wool and mohair program costs were $130 million during fiscal 1988. CCC expenditures for price support and related activities for all commodities were $12.5 billion that year. Thus, the wool and mohair programs accounted for only about 1 percent of public expenditures on price support and related programs during 1988. ■

References

Cotton and Wool Situation and Outlook Report. ERS, USDA, various issues.

Lawler, John and Robert Skinner. *Wool and Mohair: Background for 1990 Farm Legislation*, AGES 89-62. ERS, USDA, November 1989.

"Mohair: Summary of 1989 Support Program and Related Information." *Commodity Fact Sheet*. Agricultural Stabilization and Conservation Service, USDA, April 1989.

Wool and Mohair Price Support Programs, Background and Policy Issues for the 1990 Farm Bill, 89-438 ENP. Congressional Research Service, July 28, 1989.

"Wool: Summary of 1989 Support Program and Related Information." *Commodity Fact Sheet*. Agricultural Stabilization and Conservation Service, USDA, April 1989.