University of Nebraska - Lincoln
DigitalCommons@University of Nebraska - Lincoln

Historical Materials from University of Nebraska-Lincoln Extension

Extension

1978

G78-394 Parity Prices

Everett E. Peterson
University of Nebraska - Lincoln

Follow this and additional works at: https://digitalcommons.unl.edu/extensionhist

Part of the Agriculture Commons, and the Curriculum and Instruction Commons

Peterson, Everett E., "G78-394 Parity Prices" (1978). *Historical Materials from University of Nebraska-Lincoln Extension*. 1697.
https://digitalcommons.unl.edu/extensionhist/1697

This Article is brought to you for free and open access by the Extension at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Historical Materials from University of Nebraska-Lincoln Extension by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

NebGuide

PUBLISHED BY COOPERATIVE EXTENSION SERVICE
INSTITUTE OF AGRICULTURE AND NATURAL RESOURCES,
UNIVERSITY OF NEBRASKA - LINCOLN

G 78-394

Parity Prices

Everett E. Peterson, Extension Economist

Under the Food and Agriculture Act of 1977, parity prices are used to determine support levels for only two commodities: sugar and milk. However, interest in parity prices as goals for supporting prices of other farm products persists in farm policy discussion because of such use in 40 years of agricultural programs, and because the term "parity" carries connotations of equity for agriculture in relation to other economic sectors.

What Is Parity Price?

Parity price for an agricultural commodity would be that price (in current dollars) which will give the commodity the same purchasing power (in goods and service purchased by farmers and specified production costs) as the commodity had during the 1910-1914 base period.

Parity price for a commodity is calculated by figuring an "adjusted base price," which is the average price received by farmers for the commodity in the previous 10 calendar years and dividing this by the average Index of Prices Received by Farmers (1910-1914=100) for the same 10-year period. Both the numerator and denominator are adjusted to allow for unredeemed government loans and other supplemental payments from price support operations. The adjusted base price is then multiplied by the most recent Index of Prices Paid by Farmers including interest, taxes and wage rates (1910-1914=100) to yield the current parity price for the commodity. *See Table.*

An example might be if, in the base period, 50 bushels of corn might have been sold and the proceeds used to buy a ton of fertilizer. The parity price of corn at any moment is that price which would enable a farmer to buy a ton of fertilizer with the proceeds from 50 bushels of corn. Parity prices are based on the average change in prices of all goods and services rather than on individual items.

Average Prices Received by Farmers and Parity Prices, Selected Farm Products, U.S., December, 1977

Commodity	*Price rec. Dec. 15*	*Parity price for Dec.*	*% of Parity*
Wheat, bu.	$ 2.47	$ 5.05	49
Corn, bu.	1.98	3.47	57
Milo, cwt.	3.16	5.80	54
Soybeans, bu.	5.68	7.65	74
Dry edible beans, cwt.	22.80	26.80	85
Beef cattle, cwt.	35.70	58.60	61
Hogs, cwt.	41.50	55.70	75
Lambs, cwt.	56.00	62.20	90
Milk, cwt.	10.20	13.00	75

Source: AGRICULTURAL PRICES, SRS, USDA, Dec. 1977.

When parity price standards are used to assure a specific net farm income, 100 percent of parity prices may yield a farmer a higher real net income now than would have been true in 1910. This is because the parity formula does not take into account increases in farm efficiency as measured by an average index of productivity. As productivity increases, then, returns to resources used in production equivalent to 1910-1914 can be obtained with lower parity levels.

How are Parity Prices Computed?

The December issue of AGRICULTURAL PRICES, published by Statistical Reporting Service of USDA, contains this more detailed explanation of the legal basis for parity prices and of the method of computation:

"Parity prices are computed under the provi-

sions of Title III, Subtitle A, Section 301 (a) of the Agricultural Adjustment Act of 1938 as amended by the Agricultural Acts of 1948, 1949, 1954, and 1956. Parity prices are published monthly in AGRICULTURAL PRICES for most agricultural commodities. The major provisions of the amended Act relating to the calculation of parity prices are as follows:

(1) (A) The 'parity price' for any agricultural commodity, as of any date, shall be determined by multiplying the adjusted base price of such commodity as of such date by the parity index as of such date.

(B) The 'adjusted base-price' of any agricultural commodity, as of any date, shall be (i) the average of the prices received by farmers for such commodity, at such time as the Secretary may select during each year of the ten-year period ending on the 31st of December last before such date, or during each marketing season beginning in such period if the Secretary determines use of a calendar year basis to be impracticable, divided by (ii) the ratio of the general level of prices received by farmers for agricultural commodities during such period to the general level of prices received by farmers for agricultural commodities during the period January 1910 to December 1914, inclusive. As used in this subparagraph, the term "prices" shall include wartime subsidy payments made to producers under programs designed to maintain maximum prices established under the Emergency Price Control Act of 1942.

(C) The 'parity index', as of any date, shall be the ratio of (i) the general level of prices for articles and services that farmers buy, wages paid hired farm labor, interest on farm indebtedness secured by farm real estate, and taxes on farm real estate, for the calendar month ending last before such date to (ii) the general level of such prices, wages, rates, and taxes during the period January 1910 to December 1914, inclusive.

(D) The prices and indices provided for herein, and the data used in computing them shall be determined by the Secretary, whose determination shall be final.

"Section 301 (a) (I) (f) outlines authority for the Secretary of Agriculture to make special adjustments in the method of computing parity prices for particular commodities if the method outlined in the Act results in parity prices seriously out of line with those of other commodities.

"The parity prices shown in this report are based on the provisions of the amended Act. Briefly, the actual method of computation is as follows:

a. The average of prices received by farmers for individual commodities for the 10 preceding years is calculated (For 1977 this is the 1967-76 average). An allowance for unredeemed loans and other supplemental payments resulting from price support operations such as the value of marketing certificates for wheat and support payments for feed grains is included for those commodities for which applicable.
b. This 10-year average is divided by the average of the Index of Prices Received by Farmers for the same 10 preceding calendar years adjusted to include an allowance for unredeemed loans and other supplemental price support operations, including the value of marketing certificates and support payments, to give an 'adjusted base price'.
c. Parity prices are computed by multiplying the 'adjusted base prices' by the current Parity Index (the Index of Prices Paid by Farmers, including interest, Taxes, and Wage Rates, with 1910-1914=100).

"Parity prices are calculated in terms of prices received by farmers in the local markets in which they ordinarily sell. This means that parity prices apply to the average of all classes and grades of the commodity as sold by all farmers in the United States, except as otherwise specified. Fruits and vegetables for fresh use and for processing are usually considered as separate commodities, and parity prices for fresh and processing categories are calculated for many of the crops. The Agricultural Marketing Agreement Act of 1937 provided for parity prices in certain areas for certain commodities covered by a marketing agreement or order program. Under present legislation, U. S. parity prices with appropriate adjustments where needed may be used for the purpose of this Act.

"Where necessary in connection with a particular program, average or normal differentials for different varieties, classes, or grades of a commodity and average or normal spreads between different markets, methods of sale, or locations are

calculated and applied to the national average support level or to the parity price. Differentials may also be established for seasonal differences, especially where this is a reasonably regular and well-defined seasonal movement. Such spreads or differentials, of course, need adjusting or recalculating from time to time due to changes in methods of processing, in marketing and transportation costs, and in the distribution of supplies relative to demand.

"The indexes used in the computation of parity prices are published currently in AGRICULTURAL PRICES.

"For the purpose of illustrating the computation of parity prices, the calculation of the parity price for corn based data on data for July 1977 is given below.

> The 120-month, January 1967-December 1976 average of prices received by farmers for corn was $1.81 per bushel, adjusted to allow for unredeemed loans and other supplemental payments resulting from price support operations. The 120-month average of the Index of Prices Received by Farmers, adjusted to include an allowance for unredeemed loans, etc., was 360 (1910-14=100). Dividing $1.81 by 3.60 gives $0.503 per bushel, the adjusted base price. The adjusted base price is multiplied by 689 percent, the Parity Index (1910-14=100), based on data for July, 1977. This gives $3.47 per bushel, the parity price of corn during August, 1977.

"Beginning with 1964, season average prices for the processed portion of deciduous fruit and vegetables are estimated as equivalent returns at the processing plant door. This results in little or no change in the price level for commodities in most states. Most notable exceptions are deciduous fruits and vegetables processed in California where the former price level was the first delivery point, and some vegetables processed in Texas.

The Parity Ratio

"The Parity Ratio (the Index of Prices Received by Farmers for the products they sell divided by the Parity Index (1910-14=100) provides an indication of the per unit purchasing power of farm commodities generally in terms of the goods and services currently bought by farmers, in relation to purchasing power of farm products in the 1910-14 base period. Thus, a Parity Ratio greater than 100 indicates that the average per unit purchasing power of all farm products is higher than in 1910-14.

"The Parity Ratio is a measure of price relationships; not a measure of farm income, of farmers' total purchasing power, or of farmers' welfare. The latter depends upon a number of factors other than price relationships, such as changes in production efficiency and technology, quantities of farm products sold, and supplementary income, including that from off-farm jobs and federal farm programs.

"An adjusted parity ratio is computed and published which incorporates and reflects supplementary income from federal farm programs. A 'Preliminary Adjusted Parity Ratio reflecting Government payments' based on the forecast of direct Government payments for the year is published each month in AGRICULTURAL PRICES."

The Cooperative Extension Service provides information
and educational programs to all people without regard
to race, color or national origin.

File Under: FARM MANAGEMENT
D-2, Government Programs
Issued March 1978, 15,000

EXTENSION WORK IN "AGRICULTURE, HOME ECONOMICS AND SUBJECTS RELATING THERETO,"
THE COOPERATIVE EXTENSION SERVICE, INSTITUTE OF AGRICULTURE AND NATURAL RESOURCES,
UNIVERSITY OF NEBRASKA-LINCOLN, COOPERATING WITH THE COUNTIES AND THE U.S. DEPARTMENT OF AGRICULTURE
LEO E. LUCAS, DIRECTOR