Parity Prices for Farm Products[1]

Most of this book deals with the analysis of actual market prices. No book dealing with agricultural prices, however, would be complete without an analysis of those politico-economic prices known as "parity prices."

The roots of the present "parity price" concept lie chiefly in the events of the first World War and in the depression that immediately followed it.

During World War I, as Figure 52 shows, farm prices rose somewhat faster than other prices, but they also dropped faster and farther than other prices in 1920 and 1921. As a result of this drop in prices there was a great deal of agitation for some form of agricultural relief during 1921 and 1922. Almost without exception, the ideas and devices that were eventually written into the Agricultural Marketing Act of 1929, the Agricultural Adjustment Act of 1933, the Agricultural Marketing Agreement Act of 1937, and the Agricultural Adjustment Act of 1938 can be traced back to this general agitation for farm relief that was first started on a nationwide scale during 1921 and 1922.

Some of the agricultural organizations and farm journals in the Midwest were then asking for corn acreage control; groups throughout the country were considering the cooperative approach to controlling agricultural supplies and raising farm prices; and a great many of the farmers and their representatives were in favor of some kind of arrangement that would increase the export movement of our commodities and so shorten supplies in the domestic market.

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[1] The descriptive material in this chapter is adapted from (1) Howard R. Tolley, chief of the BAE, USDA, *Address before the National Cooperative Milk Producers Federation*, Chicago, Ill., November 11, 1941; (2) *Parity Prices: What They Are and How They Are Calculated.* BAE, USDA, mimeo., June 30, 1942; (3) *Fats and Oils Situation*, BAE, USDA, February, 1942, pp. 11 and 12.

This chapter originally appeared in *Agricultural Price Control*, The Iowa State College Press, 1945, by the present author. It is being replaced there in later editions by a briefer, less technical discussion.

In 1921 George Peek and Hugh Johnson prepared their brief of "equality for agriculture" that was to serve as a basis for the McNary-Haugen fight from 1924 to 1928. In this brief the need for raising farm income was set forth, and the suggestion was made
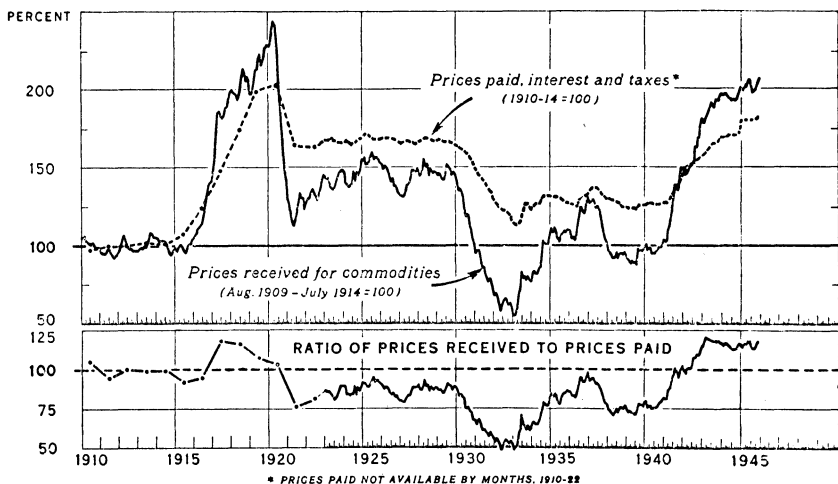
FIG. 52.—Prices received and paid by farmers, index numbers, United States, 1910-45.

that sufficient surpluses be diverted from the domestic market to maintain a "fair exchange value" or raise farm prices to the same relative level as existed in the ten years, 1906 to 1915.

About this same time George Warren, who was in charge of agricultural economics at Cornell University for so long, came to Washington and worked out the index for farm prices that was presented in United States Department of Agriculture Bulletin 999. In developing this first index of prices paid to farmers—or, as the term is now used, of prices received by producers—the prices for the several commodities were indexed on the basis of the sixty months, August, 1909, through July, 1914.

The reasons for selecting these five years as a base were:

(1) A base prior to the outbreak of the war in 1914 was considered desirable, since it was believed that a reasonably normal relationship existed between the prices of the several commodities and between the returns to the several groups of producers in the period preceding the World War; and

(2) Although prices of the chief agricultural commodities had been collected for December 1 of each year since the Civil War, the collection of prices on a monthly basis was started during 1909, so that monthly estimates of prices received by farmers were not available prior to 1909.

These two reasons, then, very largely determined the base period that is now used in calculating parity prices and parity income—that is, the five years 1909 to 1914.

PARITY: EQUALITY WITH PURCHASING POWER IN 1909-14

Warren also compared farm prices with all wholesale prices in order to obtain a rough measure of the purchasing power of farm products. A few sentences from his bulletin show the background of his thinking and the atmosphere of the times:

"Practically nothing that the farmer sells can be exchanged for the usual quantity of other things. It is physically impossible for farmers to absorb the products of factories. Farm prices have dropped much more than wholesale or retail prices of farm products. The low purchasing power of farm products has made it impossible for farmers to buy the normal amount of other things and has been a contributing cause of unemployment."

The comparison between prices received by farmers and all prices at wholesale was not, of course, an entirely satisfactory comparison. Farmers do not spend their money for goods at wholesale. Accordingly, Dr. O. C. Stine, with the help of some others in the Bureau of Agricultural Economics, worked out an index of prices paid by farmers in local markets for goods used in family living and production. This index was first published in 1928. Since that time, the comparison between prices received for the main agricultural commodities and this index of prices paid by farmers has been the generally accepted measure of the parity relationship.

Of course, a great many other ideas and devices for measuring economic equality between farmers and nonfarmers were advanced during this period. But the parity yardstick was finally accepted in 1933, because it measured off what seemed to be a fairly reasonable goal and could itself be definitely measured.

THE LEGAL BASIS OF PARITY

The original legal definition of parity is given in the Agricultural Adjustment Act of 1933, which declares that it is the policy of

Congress, among other things, to "reestablish prices to farmers at a level that will give agricultural commodities a purchasing power with respect to articles that farmers buy, equivalent to the purchasing power of agricultural commodities in the base period. The base period in the case of all agricultural commodities except tobacco shall be the prewar period, August, 1909, to July, 1914. In the case of tobacco, the base period shall be the postwar period, August, 1919, to July, 1929."

While this formula has been amended and reenacted several times since 1933, it has not been essentially changed, except that allowances for interest payments per acre on farm indebtedness secured by real estate and tax payments per acre on farm real estate have been added to the purchasing power calculations for all commodities for which the base period is 1909 to 1914, and the base period for Burley and flue-cured tobacco has been shifted to August, 1934, to July, 1939.

The current legal bases for calculating parity are found in Section 301 of the Agricultural Adjustment Act of 1938, as amended, and Sections 2 and 8 (e) of the Agricultural Marketing Agreement Act of 1937. Section 2 of the Agricultural Marketing Agreement Act is in effect a reenactment of the definition of parity prices as contained in the Agricultural Adjustment Act of 1933, as amended, which is the same essential definition as used in the Agricultural Adjustment Act of 1938, as amended. Section 8 (e) of the Agricultural Marketing Agreement Act of 1937 sets forth the procedure to be used when satisfactory data cannot be obtained for the base period, 1909 to 1914. It provides that "in connection with the making of any marketing agreement or the issuance of any order, if the Secretary finds and proclaims that, as to any commodity specified in such marketing agreement or order, the purchasing power during the base period specified for such commodity in Section 2 of this title cannot be satisfactorily determined from available statistics of the Department of Agriculture, the base period, for the purposes of such marketing agreement or order, shall be the postwar period, August, 1919, to July, 1929, or all that portion thereof for which the Secretary finds and proclaims that the purchasing power of such commodity can be satisfactorily determined from available statistics of the Department of Agriculture."

Other amendments also are of interest, but they supplement rather than change the original formula. Under the Agricultural

Marketing Agreement Act of 1937 the Secretary is directed to consider "the price of feeds, the available supplies of feeds, and other economic conditions which affect market supply and demand" in determining prices for milk and its products in areas where marketing agreements are in effect.

In certain cases, the Congress has provided that "comparable prices" can be calculated which shall in effect be substituted for the parity prices as calculated according to the regular method. This authority is contained in the so-called "Steagall Amendment," or Sections 4 (a) and 4 (b) of Public No. 147, Seventy-seventh Congress, which read:

"(a) Whenever, during the existing emergency, the Secretary of Agriculture finds it necessary to encourage the expansion of production of any nonbasic agricultural commodity, he shall make public announcement thereof, and he shall so use the funds made available under Section Three of this Act or otherwise made available to him for the disposal of agricultural commodities, through a commodity loan, purchase, or other operation, taking into account the total funds available for such purpose for all commodities, so as to support a price for the producers of any such commodity with respect to which such announcement was made of not less than 85 per centum of the parity or comparable price therefor. The comparable price for any such commodity shall be determined and used by the Secretary for the purposes of this section if the production or consumption of such commodity has so changed in extent or character since the base period as to result in a price out of line with parity prices for basic commodities. Any such commodity loan, purchase, or other operation which is undertaken shall be continued until the Secretary has given sufficient public announcement to permit the producers of such commodity to make a readjustment in the production of the commodity. For the purposes of this section, commodities other than cotton, corn, wheat, tobacco, and rice shall be deemed to be nonbasic commodities.

"(b) It is hereby declared to be the policy of the Congress that the lending and purchase operations of the Department of Agriculture, other than those referred to in subsection (a), shall be carried out so as to bring the price and income of the producers of nonbasic commodities not covered by any such public announcement to a fair parity relationship with other commodities, to the extent that funds for such operations are available after taking into

account the operations with respect to the basic commodities and the commodities listed in any such public announcement and the ability of producers to bring supplies into line with demand."

DETERMINATION OF COMPARABLE PRICES

So far, the only commodities for which comparable prices have been calculated are soybeans, peanuts for oil, and dry field peas, all of which are commodities which have come into general use since 1929. The method used in determining comparable prices for these three commodities is based upon the calculation of a series of base prices which "bear the same relation to the average base prices of corn, cotton, wheat, rice, and tobacco as the actual prices of the same commodities were to the average actual prices of these five basic commodities in the sixty months, August, 1934, through July, 1939."

In keeping with the language of Section 4 of Public Law No. 147, Seventy-seventh Congress, base prices from which comparable prices for soybeans and peanuts for oil may be computed currently were determined by dividing the average price for each commodity in the period, August, 1934, to July, 1939, by two factors: (a) The average percentage ratio of prices for the five basic agricultural commodities to their parity prices in that period, and (b) the average index number of prices paid by farmers for commodities purchased, including interest and tax payments (1910–14 = 100). Average prices for the five basic commodities were equal to 79 per cent of the parity prices for those commodities in the period, August, 1934, to July, 1939,[2] while the index number of prices paid, including interest and taxes, averaged 129. These two factors were combined (.79 and 1.29) to give a single divisor of 1.02.

Dividing the average price of the given commodity by 0.79 raises the price, in effect, to a fair parity relationship with the parity prices for the basic commodities in the 1934–39 period. Dividing by 1.29 merely translates the adjusted price back to the prewar, 1910–14, base period.

The calculation of comparable prices currently from the 1910–14 base price is the same as the calculation of parity prices for most

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[2] The figure of 79 per cent is obtained by weighting the actual prices and the parity prices of the basic commodities (corn, wheat, cotton, rice, and tobacco) in the 1934–39 period by the average production of these commodities in the same period. The weighted aggregate of the actual prices was divided by the weighted aggregate of the parity prices.

commodities. That is, the 1910–14 base price is multiplied by the current index number of prices paid by farmers for commodities purchased, including interest and tax payments. In mid-January, 1945, this index number was 172, or 72 per cent higher than in the 1910-14 period.

The five years, August, 1934, to July, 1939, were selected for determining the base prices for peanuts for oil and soybeans mainly because prices in that period represent as nearly as possible the normal relationships among prices of the commodities involved under conditions of production and consumption recently existing. This period antedates the recent world conflict and coincides with the most recent base period selected by Congress for use in making parity price computations (flue-cured and Burley tobacco).

The basic data, method of computation, and results for soybeans for January, 1945, are shown in Table 22.

TABLE 22

SOYBEANS: AVERAGE PRICE PER BUSHEL RECEIVED BY FARMERS, AUGUST, 1934–JULY, 1939, AND JANUARY, 1945, BASE PRICE, AND COMPARABLE PRICES IN JANUARY, 1945

(1)	(2)	(3)	(4)
Average Price, August, 1934– July, 1939	Base Price, (1) ÷ 1.02 *	Comparable Price, January 15, 1945 (2) × 1.72 †	Actual Price, January 15, 1945
0.98	0.96	1.65	2.06

Columns (1) and (4), Agricultural Marketing Service and Surplus Marketing Administration. Columns (2) and (3) computed.

* The divisor, 1.02, is obtained by multiplying the 1934–39 average ratio of prices received by farmers for the five basic commodities to parity prices for the five basic commodities (weighted aggregates, using production weights) by the average index number of prices paid by farmers, including interest and taxes, in the same period (1910–14 = 1.00). The computation is as follows: 0.79 × 1.29 = 1.02.

† The factor, 1.72, is the index number of prices paid by farmers, including interest and taxes, for January 15, 1945 (1910–14 = 1.00).

PARITY PRICES ARE FARM PRICES

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 pro-

cessing are usually considered as separate commodities, and special parities are sometimes calculated for commodities produced in certain areas where such commodities are covered by a marketing agreement or order program.

Where necessary, of course, 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 can be calculated and applied to the average parity price for the nation. These spreads or differentials, however, should not themselves be considered parities, as they will often need adjusting or recalculating due to changes in methods of processing, in marketing and transportation costs, and in the distribution of supplies relative to demand. Parity prices also may be corrected for seasonal differences, especially where there is a reasonably regular and well defined seasonal movement.

Grade and location differentials are worked out and used in connection with almost all commodity loans made by the Commodity Credit Corporation, as well as in connection with most of the price-support programs under Section 4 (a) of Public No. 147, Seventy-seventh Congress.

Beef cattle prices by grades at the farm are not available. The different grades cover a wide range of values, so the regular parity price, representing the average price of all classes and grades at the farm, is unsatisfactory for comparison with the actual prices received for the various classes and grades of cattle sold at the terminal markets. The Department of Agriculture, therefore, computes and publishes each month in "Agricultural Prices" a series of parity price equivalents for the several classes and grades of beef cattle at Chicago.

These parity price equivalents are computed by multiplying the regular parity price each month by the appropriate ratio for each class and grade of cattle. These ratios are the ratios of the annual and monthly market prices by classes and grades at Chicago, to the United States average prices received by farmers for beef cattle, over the twenty-year period, January, 1922, to December, 1941. These ratios are shown in Table 23. The Chicago market equivalent of parity prices, by grades, for any month can be computed by multiplying the regular parity price for that month by the ratio for the corresponding month shown in the table for the grade concerned.

Different ratios are used for the separate classes and grades of

TABLE 23

Ratio of Cattle Prices at Chicago and Average Cost to Packers to the United States Average Price Received By Farmers for Beef Cattle, 1922–41 Average by Months for Selected Classes and Grades*

Class and Grade	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
United States average cost to packers...................	1.09	1.11	1.12	1.14	1.15	1.14	1.13	1.11	1.08	1.04	1.04	1.07	1.10
Market Prices at Chicago													
Beef steers (sold out of first hands from the Corn Belt):													
Choice and Prime.......	1.82	1.76	1.69	1.64	1.60	1.61	1.66	1.74	1.80	1.85	1.87	1.87	1.74
Good.................	1.57	1.54	1.50	1.47	1.45	1.47	1.52	1.57	1.60	1.62	1.62	1.60	1.54
Medium..............	1.34	1.34	1.32	1.31	1.31	1.32	1.33	1.34	1.34	1.34	1.35	1.35	1.33
Common..............	1.13	1.15	1.15	1.15	1.14	1.13	1.10	1.07	1.06	1.06	1.08	1.11	1.11
Heifers, average of good and choice...................	1.43	1.40	1.38	1.36	1.35	1.37	1.42	1.47	1.50	1.51	1.51	1.47	1.43
Cows:													
Good.................	1.00	1.01	1.02	1.03	1.04	1.04	1.03	1.03	1.02	1.00	1.00	1.00	1.02
Canner................	.61	.62	.63	.65	.65	.63	.60	.59	.59	.59	.59	.60	.61
Beef bulls, good.............	.99	.97	.96	.96	.97	.98	.98	.98	.97	.97	.98	.99	.97
Feeder steers, average all weights and grades.........	1.13	1.17	1.18	1.19	1.17	1.13	1.08	1.07	1.09	1.10	1.09	1.11	1.13

Source: *The Livestock Situation*, BAE, USDA, April, 1942, p. 16.
* Based on the 3-month moving averages of ratios of 1922–41 average prices.

cattle in each month of the year. This is necessary because the relationship of the prices of the several classes and grades to the average price received by farmers fluctuates in a more or less regular fashion from season to season each year. The 1922–41 average ratios shown in this table are indicative of the usual seasonal relationships between prices of the several classes and grades of cattle sold by farmers throughout the year.

It should be emphasized that the basis for the official parity price for beef cattle is still the United States average price received by farmers; it will be compiled and published in the future as it has been in the past. The concept of parity refers only to prices received by farmers at local markets. The figures computed by the use of the ratios given in Table 23 are not parity prices by classes and grades of beef cattle, but are the average or normal equivalents of parity for the specified classes and grades of beef cattle marketed at Chicago. These market equivalents are subject to revision as additional data become available, or whenever it appears that marketing conditions have changed substantially.

The published parity prices for eggs, butterfat, and wholesale milk are corrected for seasonal variation. This is done by multiplying the 1909–14 base price by the index of prices paid, including taxes and interest, and then multiplying the resulting parity price by the appropriate seasonal factor for the particular month. These factors, as well as seasonal indexes for a considerable number of other agricultural commodities, originally given in the Midmonth Local Market Price Report for May 15, 1942, are reproduced in Table 24.

THE COMPUTATION OF THE INDEX OF PRICES PAID BY FARMERS

Parity prices, therefore, are based upon two things: (1) the price of the farm product during the base period, in most cases, 1909–14, and (2) the current index of the prices paid by farmers. The method of computing the prices of farm products was explained above. The index of the prices paid by farmers is computed as follows:

The index of prices paid by farmers, including taxes on real estate and interest paid, is calculated currently each month. It includes the prices of eighty-six items used in family living and ninety-four items used in farm production. These items include clothing; household supplies; food; furniture and furnishings; building materials; automobiles, trucks, tractors, gas, oil, and tires; feed; farm

TABLE 24

INDEX NUMBERS OF SEASONAL VARIATION IN UNITED STATES AVERAGE FARM PRODUCT PRICES,* CALENDAR YEARS, 1922–41

Commodity	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ave.
Wheat	102.4	102.4	102.7	102.8	103.8	99.9	97.2	96.0	96.9	96.8	98.6	100.5	100.0
Corn	92.3	94.0	95.3	98.4	103.0	105.5	109.9	111.8	110.0	98.2	90.6	91.0	100.0
Oats	102.5	104.2	104.2	105.0	105.4	102.5	100.2	92.1	93.7	93.9	96.2	100.1	100.0
Barley	102.3	103.2	103.7	104.2	104.3	93.9	95.0	97.1	98.0	98.6	98.9	100.8	100.0
Buckwheat	95.0	96.1	98.0	99.1	102.0	105.7	109.5	107.7	103.8	95.3	93.5	94.3	100.0
Flaxseed	102.4	102.4	102.4	103.0	103.0	99.6	99.4	97.3	97.0	97.0	97.2	99.3	100.0
Rice†	100.4	100.6	101.0	101.9	103.1	103.6	102.5	98.0	95.4	95.5	98.6	99.4	100.0
Cotton	97.7	98.8	100.4	100.4	101.7	101.9	104.5	102.0	101.6	97.8	97.2	96.0	100.0
Cottonseed	99.0	100.5	102.2	104.5	106.0	103.1	100.6	94.8	95.6	96.0	98.8	98.9	100.0
Potatoes	96.7	98.4	100.2	102.5	102.9	103.1	113.6	113.5	97.1	87.9	91.2	92.9	100.0
Sweet potatoes	89.3	95.2	100.2	104.3	108.2	109.3	110.7	121.6	105.8	90.3	80.7	84.4	100.0
Peanuts	95.2	98.4	101.9	102.7	105.1	104.9	103.9	103.8	102.3	95.1	94.8	91.9	100.0
Apples	98.6	103.0	105.7	110.0	118.5	126.4	110.1	88.0	81.5	81.0	85.0	92.2	100.0
Hay	101.4	102.1	102.2	102.9	103.0	100.2	96.4	96.6	97.5	97.7	99.5	100.5	100.0
Milk equivalent†§	104.8	102.5	99.7	96.0	92.2	90.4	93.5	96.9	101.7	105.3	108.2	108.8	100.0
Chickens	96.0	98.1	100.4	104.3	105.2	103.8	103.3	101.4	101.3	98.6	95.2	92.4	100.0
Turkeys¶	105.8	104.1	102.4	101.0	96.2	92.0	90.9	90.7	96.3	100.9	108.4	111.3	100.0
Hogs	94.2	98.1	100.2	102.9	100.0	98.3	97.8	104.9	107.1	103.3	94.7	89.4	100.0
Beef cattle	97.5	98.4	101.5	103.5	104.1	102.7	102.2	100.9	100.2	98.2	95.8	95.0	100.0
Veal calves	101.1	103.9	103.1	100.3	98.0	97.3	97.7	98.4	102.9	101.9	98.2	97.2	100.0
Lambs	99.1	102.2	105.7	106.4	106.5	104.6	99.7	95.6	95.9	94.5	94.6	95.2	100.0
Soybeans‖	102.8	103.1	104.9	109.9	114.6	106.1	100.3	90.2	90.2	87.1	93.0	97.8	100.0
Milk, wholesale	105.9	102.7	98.4	93.8	90.0	89.0	93.0	98.0	103.0	106.7	110.1	109.4	100.0
Beans, dry edible	96.1	97.4	98.7	100.0	103.0	103.7	104.1	104.1	102.5	98.2	96.8	95.4	100.0
Rye	102.7	103.0	102.7	101.7	101.6	98.2	97.2	95.8	97.6	98.4	99.4	101.7	100.0
Wool	101.2	101.0	100.7	98.5	98.0	98.0	99.0	99.0	100.0	101.0	101.4	102.2	100.0
Butterfat	103.9	102.5	101.5	99.0	94.7	91.6	93.4	95.1	99.4	103.2	106.2	109.5	100.0
Eggs**	95.0	88.0	82.0	82.0	82.0	79.0	90.0	97.0	114.0	127.0	141.0	123.0	100.0
Eggs††	101.0	92.0	84.0	84.0	85.0	86.0	93.0	98.0	110.0	119.0	128.0	120.0	100.0

Source: Bureau of Agricultural Economics.

* Average of ratios to 12-month moving average centered, adjusted to add to 1,200 and to eliminate abnormal fluctuations.

† Based on 1931–41, monthly prices not available for earlier years.

‡ Based on 1924–41, monthly prices not available for earlier years.

§ Weighted average price of milk, wholesale, and milk equivalent price of butter and butterfat.

¶ Based on 1934–41, monthly data not available for earlier years.

‖ Based on 1937–41.

** These index numbers apply only to 1942 since a moving seasonal is used for eggs to take account of changes in the conditions affecting the seasonal movement of egg prices.

†† For July, 1944 to June, 1945, as published in Agricultural Prices, September, 1944, p. 23.

machinery; fertilizer; general equipment and supplies; and seed. The estimated quantity of each commodity used by farmers is used to weight both the prices paid in 1910–14 and current prices, in order to obtain the necessary ratios of indexes of prices paid. The tax and interest data are calculated as rates per acre and converted into index form.

There are now about ten thousand dealers in agricultural products reporting to the Department the current prices paid to producers (that is, received by farmers). Similarly, approximately fourteen thousand local merchants servicing the farm population report retail prices in rural areas which are the chief bases of the prices paid by farmers, although some other sources also are used.

Briefly, the steps in computing this index of prices paid, interest, and taxes, are as follows.

(a) The prices paid for individual commodities are averaged by states and then weighted together by the estimated purchases made by farmers in each state to obtain an average for the nation.

(b) National average prices are combined into various subindexes—food, clothing, feed, etc.—by giving each item a weight based upon the average quantity purchased per farm during the six years, 1924–29. The sub-group values or aggregates thus obtained are then expressed as a percentage of the values or aggregates for the same commodities during the base period, 1910–14.

(c) The sub-indexes are then combined into an index of prices paid for commodities used for *family living* and an index of prices paid for commodities used in *farm production.* These two indexes are then combined into a single over-all index of prices paid by farmers by weighting each according to its relative importance with regard to farm expenditures during the six years, 1924–29.

(d) The index of prices paid by farmers for commodities is combined with interest per acre on mortgage indebtedness secured by farm real estate and taxes per acre on farm real estate, to obtain the index of prices paid, interest and taxes, by giving prices paid for commodities a weight of 86 per cent, interest 7.2 per cent, and taxes 6.8 per cent. The 86 per cent allotted to the prices-paid index is distributed as follows: commodities used for *family living,* 48.6 per cent (food, 17.5; clothing, 14.8; supplies, 6.8; furniture and furnishings, 2.9; building materials for house, 3.6; and automobiles, 3.0), and commodities used for *farm production,* 37.4 per cent (feed, 10.1; machinery, 4.2; autos and trucks, 4.5; tractors, 1.2; fertilizer, 3.2;

building and fencing materials, 5.9; equipment and supplies, 6.9; and seed 1.4).

It will be noted that this index of prices paid by farmers does not include any allowance for sums spent for farm labor. During 1942 parity prices would have been raised about three points if an allowance for wage rates had been included. Wages cannot be included without a legislative amendment.

THE CALCULATION OF CURRENT PARITY PRICES

The first step in calculating the parity price for a farm product is to look up the average price of that product in the base period (in most cases, August, 1909, to July, 1914). This price is published in the monthly mimeographed BAE report, "Agricultural Prices." The price of wheat during this base period, for example, is given as 88.4 cents per bushel.

The next step is to look up the current index of the prices paid by farmers. This is given in the same publication. The base price of the product then is multiplied by this current index of prices paid. If the index of prices paid stands at 200, that means that prices paid by farmers are twice as high as they were in the base period 1910–14. In that situation, the parity price for wheat would be $\frac{88.4 \times 200}{100} = 176.8$ cents per bushel. That is, wheat prices, in order to give wheat the same purchasing power as it had in 1909–14, would have to be twice as high as they were in 1909–14.

Parity prices have been calculated and published for 164 items, of which only 61 remain on the 1909–14 prewar base. Nearly one-half of the items have bases in the 1919–29 period. However, those items which remain on the original base account for about four-fifth of the cash income to farmers.[3]

For several commodities, chiefly fruits and vegetables, which have only recently come into general use or for which earlier data are not available, the base period is August, 1919, to July, 1929, while for Burley and flue-cured tobacco, as mentioned above, the base period is August, 1934, to July, 1939. Parity for these commodities is calculated in exactly the same manner as for other commodities, except that allowances for interest and taxes are not included.

Parity prices calculated according to this formula are published

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[3] O. C. Stine, "Parity Prices," *Journal of Farm Economics*, XXVIII, No. 1, February, 1946, p. 303.

TABLE 25

UNITED STATES PARITY AND COMPARABLE PRICES FOR FARM PRODUCTS AND ACTUAL PRICES RECEIVED EXPRESSED AS A PERCENTAGE OF PARITY, AND COMPARABLE, JANUARY 15, 1945, WITH COMPARISONS*

Commodity and Unit		Average Base Period Prices Aug., 1909 July, 1914	Parity or Comparable Prices			Actual Prices as a Percentage of Parity or Comparable†		
			Jan. 15,‡ 1944	Dec. 15, 1944	Jan. 15, 1945	Jan. 15,‡ 1944	Dec. 15, 1944	Jan. 15, 1945
Parity Prices								
Wheat, per bu	dollars	.884	1.49	1.51	1.52	98	96	96
Corn, per bu	"	.642	1.08	1.10	1.10	105	96	97
Oats, per bu	"	.399	.670	.682	.686	116	102	105
Barley, per bu	"	.619	1.04	1.06	1.06	104	93	96
Rye, per bu	"	.720	1.21	1.23	1.24	....	86	....
Rice, per bu	"	.813	1.37	1.39	1.40	137	126	125
Flaxseed, per bu	"	1.69	2.84	2.89	2.91	....	100	....
Grain sorghums, per cwt	"	1.21	2.03	2.07	2.08	101	70	75
Beans, dry edible, per cwt	"	3.37	5.66	5.76	5.80	107	108	107
Cotton, per lb	cents	12.4	20.83	21.20	21.33	97	98	95
Cottonseed, per ton	dollars	22.55	37.90	38.60	38.80	....	138	....
Potatoes, per bu	"	1.12§	1.22	1.24	1.25	116	121	126
Sweet potatoes, per bu	"	.878	1.48	1.50	1.51	136	117	126
Tobacco, per lb.								
Type 11–14	cents	22.9	31.8	32.5	32.7	....	135	....
Type 31	"	22.2	30.9	31.5	31.7	147	142	143
Type 35–36	"	10.9§	11.9	12.1	12.2	226	199	184
Type 37	"	14.6§	15.9	16.2	16.4	222	160	195
Hay, per ton	dollars	11.87	19.90	20.30	20.40	79	81	84
Peanuts, per lb	cents	4.8	8.06	8.21	8.26	89	99	99
Apples, per bu	dollars	.96	1.61	1.64	1.65	170	142	149
Lemons, per box	"	2.02§	2.20	2.24	2.26	106	124	85
Hogs, per cwt	"	7.27	12.20	12.40	12.50	105	108	111
Beef cattle, per cwt	"	5.42	9.11	9.27	9.32	123	124	126
Veal calves, per cwt	"	6.75	11.30	11.50	11.60	112	112	114
Lambs, per cwt	"	5.88	9.88	10.10	10.10	127	123	129
Wool, per lb	cents	18.3	30.7	31.3	31.5	....	129	....

TABLE 25—*continued*

Commodity and Unit		Average Base Period Prices Aug., 1909 July, 1914	Parity or Comparable Prices			Actual Prices as a Percentage of Parity or Comparable †		
			Jan. 15, ‡ 1944	Dec. 15, 1944	Jan. 15 1945	Jan. 15, ‡ 1944	Dec. 15, 1944	Jan. 15, 1945
Parity Prices (continued)								
Butterfat, per lb..............	cents	26.3	45.9‖	49.3‖	47.0‖	111	103	108
Milk, wholesale, per cwt........	dollars	1.60	2.85‖	3.00‖	2.91‖	118	113	115
Chickens, live, per lb..........	cents	11.4	19.2	19.5	19.6	124	124	123
Turkeys, live, per lb..........	"	....	24.2	24.6	24.8	....	141	....
Eggs, per doz. ‡..............	"	21.5	36.1‖	44.2‖	37.4‖	96	101	110
Comparable Prices **								
Oranges, per box ¶............	dollars	1.81 ††	1.97	2.01	2.03	86	111	98
Grapefruit, per box ¶.........	"	.81 ††	.88	.90	.91	134	164	148
Soybeans, per bu..............	"	.96 ‡‡	1.61	1.64	1.65	113	125	125

* Based on local market prices; does not include conservation, parity, dairy, production, or other Government payments made direct.

† Percentages of parity not shown for commodities, other than cotton, for which sales do not amount to as much as 5 per cent of the season's total in a given month.

‡ Revised.

§ Ten-season average, 1919–28.

¶ Equivalent on-tree returns for all methods on sale.

‖ Adjusted for seasonal variation.

** Computed under Section 3(b) of Price Control Act.

†† Derived base period price, 1919–29.

‡‡ Derived base price.

every month in the BAE report, "Agricultural Prices," which also carries prices received by farmers on the fifteenth of the month. A typical table from that report is reproduced herewith, in Table 25, showing the data for January 15, 1945. The "parity index" (the index of the prices paid by farmers) on that date was 172.