

# 18

## Parity Prices for Farm Products

The agricultural parity concept developed step by step during the late 1920's and early 1930's.<sup>1</sup> “. . .the concept as we now know it did not spring full blown from the brain of some economic Jupiter, but rather grew out of the continuous groping for a concrete measure of justice for the farmer, and was steadily modified by conditions prevailing in the economic life of farmers and the nation. In other words, parity did not develop as the practical application of an economic theory immaculately conceived, free from all taint of original sin in the form of class interest. On the contrary, parity, like Topsy, just grewed; and whatever economic justification can be found for it in its present form may be considered largely a rationalization.”<sup>2</sup>

### OBJECTIVE OF THE PARITY LEGISLATION

The first specific parity formula was incorporated in the Agricultural Adjustment Act of 1933. The objective stated in the act was 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,

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<sup>1</sup> The development and present status of the present parity price formula is well outlined in “Possible Methods of Improving the Parity Formula,” Senate, 85th Cong., 1st sess., S. Doc. 18, 1957, pp. 8-13. See also “An alternative Parity Formula for Agriculture,” Res. Bul. 476, Iowa State Univ., Ames, Feb., 1960.

<sup>2</sup> E. W. Grove, “The Concept of Income Parity for Agriculture,” *Studies in Income and Wealth*, Vol. 6, Nat'l. Bur. Econ. Res., New York, 1943.

August, 1909–July, 1914. In the case of tobacco, the base period shall be the postwar period, August, 1919–July, 1929.”<sup>3</sup>

Parity prices, then, were to be prices which would give *farm products* the same purchasing power *per unit* (bushel, bale, etc.) for goods and services used in both production and family living as prevailed in the base period.

The legislation was passed, of course, not for the benefit of the farm products concerned as such, but for the benefit of the farmers who produced these products. The objective was to restore the price conditions that existed during the base period, on the assumption that this would restore the economic situation of the producers of the products.

The word parity itself was not used in the AA Act of 1933. It first appeared in agricultural legislation in the AA Act of 1938. The purpose of that act, as stated in the opening paragraph, was to accomplish a number of things “assisting farmers to obtain, insofar as practicable, parity prices for such commodities and parity of income . . . .”

Pursuant to the objective stated in the Agricultural Adjustment Act of 1933, the parity formula was developed to reflect changes in the prices of the “articles that farmers buy.” Parity prices then could be computed for agricultural commodities that farmers sell which would give those commodities the same purchasing power that they had in the base period.

### CONTENT OF THE PARITY FORMULA

The USDA had been compiling and publishing the price data called for in the AA Act of 1933 for some years previous to 1933. The index of prices *received* by farmers for the products they sell was compiled on a monthly basis beginning with 1909. It was first published in 1921.

The basic data for the index of prices paid for the “articles that farmers buy” were more difficult to obtain. This index was compiled on an annual basis beginning with 1909, on a quarterly basis beginning with 1924, and on a monthly basis beginning with 1937. This index of prices paid by farmers was first published in 1928.<sup>4</sup> At that time, the pre-World War I base, 1910–14, seemed a reasonable base to use for both series — the prices received by farmers,

<sup>3</sup> Agricultural Adjustment Act, Public Law 10, *U. S. Statutes at Large*, 73rd Cong., 1st sess., Vol. 48, May 12, 1933, p. 32.

<sup>4</sup> In the Agricultural Acts of 1948 and 1949, the index of prices paid by farmers was legally defined as the parity index.



*“What IS parity?”*

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and the prices paid by farmers. That base was written into the AA Act of 1933.

The parity formula laid down in the AA Act of 1933 was amended and reenacted several times after 1933.<sup>5</sup> The prices of certain services were added to the prices paid by farmers, and "comparable prices" were provided for some products which had not come into general use until after 1929. In addition, the Agricultural Act of 1948 introduced a table of loan rates that varied inversely with the supply of the crop.

### Price Bases

The Agricultural Act of 1948 also included provisions which "modernized" the parity formula. It brought the base period for computing the relative parity prices of individual farm products (the parity prices relative to each other) up to a more recent date — the most recent 10-year moving average. The 1910-14 base period was retained, however, for parity prices as a whole. This modernized formula was to become effective in 1950. The Agricultural Act of 1949 modified the formula by the inclusion of farm wage rates in the parity index and the inclusion of direct subsidy payments on dairy products, cattle, and lambs in prices received before it became effective.

To avoid extremely sharp declines in the parity prices of any commodity, transitional parity prices were provided by the 1948 act. They were to be used for those commodities for which the new parity prices were less than 95 per cent of the old parity prices in 1950, 90 per cent in 1951, and so on. In other words, the parity price as calculated under the old method was to be reduced 5 per cent each year until the transitional parity was less than the parity prices as defined by the new act. From then on, the new parity was to be used. These transitional prices were incorporated into the 1949 act. In actual practice, "dual parity" was used for several years with the six basic crops. The parity prices computed by the modernized formula went into effect only if they were higher than prices com-

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<sup>5</sup>The details concerning these amendments, and the steps involved in the computation of parity prices for different products, are given in B. R. Stauber, *et al.*, "The Revised Price Indexes," *Agricultural Economics Research*, Vol. 2, No. 2, Apr., 1950, pp. 33-62. Some interesting background on the evolution of the term "parity" is given in R. L. Tontz, "Evolution of the Term Parity in Agricultural Usage," *Southwestern Social Science Quarterly*, March, 1955, pp. 345-55.

puted under the old formula. The marketing service of the USDA gives the following explanation:<sup>6</sup>

For the purpose of illustrating the computation of parity prices the calculation of the effective parity price for corn based on data for January 1960 is given below. The parity price under the new formula of the amended act is computed as follows:

The 120-month, January 1950–December 1959, average of prices received by farmers for corn, adjusted to include an allowance for unredeemed loans, etc., was \$1.39 per bushel. The 120-month average of the Index of Prices Received by Farmers, adjusted to include an allowance for unredeemed loans, etc., was 255. Dividing \$1.39 by 255 gives \$0.545 per bushel, the adjusted base price. Multiplying this adjusted base price by 299, the Parity Index based on data for January 1960, gives the indicated price of \$1.63 per bushel as computed using the new formula.

Since the effective parity for corn, a basic commodity, was the transitional parity based on data for December 1959, it was also necessary to compute the transitional parity based on data for January 1960. As noted above the transitional parity for basic commodities during 1960 is 80 per cent of the parity price computed by the old formula. The parity price according to the old formula is calculated by multiplying the average price received by farmers for corn for the 60 months, August 1909–July 1914, which was \$0.642 per bushel, by the January 15, 1960, unrevised Index of Prices Paid, including Interest and Taxes, which is 315 per cent. This gives an indicated parity price of \$2.02 per bushel under the old formula. Multiplying by 80 per cent gives \$1.62 the transitional parity price. Since this is lower than the indicated parity price under the new formula of \$1.63 per bushel, the parity price under the new formula is now the effective parity price for corn.

Effective parity prices for most commodities have shifted to the new formula, but for some commodities the transitional parity is still the effective parity price.

### Weight Bases

In 1950, the weight base used in computing the index of prices paid was moved up from 1924–29 to 1937–41, and the weights were revised in line with the quantities used in the later period. In January, 1959, the weight-base period was moved up again, to 1955, with weights revised in line with the 1955 Farm Expenditure Survey and the 1955 Food Consumption Survey.<sup>7</sup> The weight base for the index of prices *received* was moved up to 1953–57 (the 5-year period was used so as to average out most of the year-to-year vari-

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<sup>6</sup> Agricultural Prices, USDA, AMS, Jan. 29, 1960, p. 44.

<sup>7</sup> B. R. Stauber, R. F. Hale, and B. S. Peterson, "The January 1959 Revision of the Price Indexes," *Agricultural Economics Research*, Vol. 11, Nos. 2 and 3.

TABLE 18.1

INDEXES OF PRICES RECEIVED BY FARMERS FOR COMMODITIES, AND PRICES PAID FOR COMMODITIES, INTEREST, TAXES, AND WAGE RATES, AND PARITY RATIOS, UNITED STATES, 1910-67  
(Index base, 1910-14 = 100)

Year	Index of Prices Received	Index of Prices Paid *	Parity Ratio	Year	Index of Prices Received	Index of Prices Paid *	Parity Ratio
1910....	104	97	107	1953...	255	277	92
1920....	211	214	99	1954...	246	278	89
1930....	125	151	83	1955...	232	276	84
1940....	100	124	81	1956...	230	278	83
1941....	124	133	93	1957...	235	287	82
1942....	159	152	105	1958...	250	294	85
1943....	193	171	113	1959...	240	298	81
1944....	197	182	108	1960...	238	300	80
1945....	207	190	109	1961...	240	302	80
1946....	236	208	113	1962...	244	307	80
1947....	276	240	115	1963...	243	312	78
1948....	287	260	110	1964...	237	313	76
1949....	250	251	100	1965...	248	321	77
1950....	258	256	101	1966...	266	334	80
1951....	302	282	107	1967...	253	342	74
1952....	288	287	100				

\* Including interest, taxes, and farm wage rates.

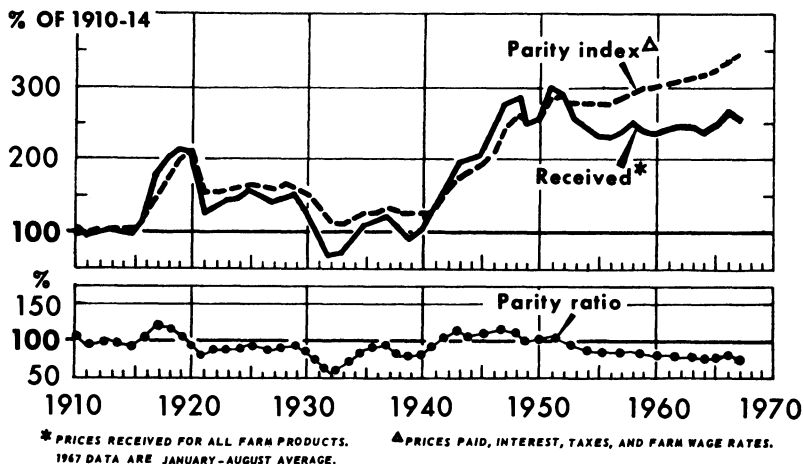
ations in quantities sold which result chiefly from irregular variations in weather).

The indexes of prices received and prices paid from 1910 to 1960 are given in Table 18.1. The ratio between the two indexes (the parity ratio) is also given. The data since World War II are shown graphically in Figure 18.1.

#### PERCENTAGES OF PARITY PRICES USED AS BASES FOR CCC LOAN RATES

In October, 1933, the Commodity Credit Corporation was organized for the purpose of stabilizing the supplies and prices of the basic farm products. It operated as a storage agency, making non-recourse commodity loans to farmers and taking over the commodities for which the loans were not redeemed.

For the first few years, the CCC set the loan rates at appropriate levels for stabilization purposes. The Agricultural Adjustment Act of 1938 took the setting of the loan rates out of the CCC's hands and



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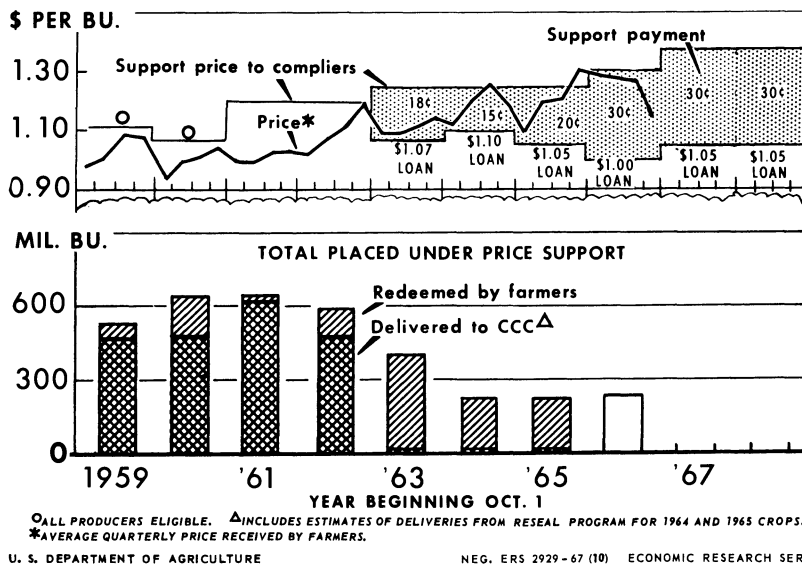
Fig. 18.1 — Prices received by farmers, parity index, and parity ratio, United States, monthly average, 1910-67.

wrote into law the range of percentages of parity prices within which the loan rates were to be set. The range extended from 52 to 75 per cent of parity. In the case of corn, the loan rate varied within the range, inversely with the size of the crop.

In May, 1941, Congress went further; it directed the CCC to set the loan rates for the "basic" commodities — cotton, corn, wheat, tobacco, and rice — at 85 per cent of parity. This raised loan rates about 50 per cent higher than the 1940 rates on cotton and wheat and 13 per cent higher on corn. The rates for most products were raised to 90 per cent of parity in 1944, where they remained until they began to be reduced in 1955. The data for corn are given for illustration in Figure 18.2 and Table 18.2.

### Effects of Using Percentages of Parity Prices

The effects of this use of percentages of parity prices as the bases for loan rates were spectacular. They distorted the allocative function of prices in the direction of the supported commodities. Agricultural production in the United States was already increasing faster than the demand, under the impact of rapid technological development. The setting of price supports at percentages of parity, above long-run, free-market equilibrium levels, further stimulated overproduction of the supported commodities above market needs, and at the same time reduced the consumption of those products.



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Fig. 18.2 — Corn price support operations, 1959-67.

As a result, huge stocks of wheat, cotton, and feed grains, particularly, were accumulated by the CCC. Desperate attempts to reduce production by acreage controls and to stimulate consumption by domestic and export consumption subsidies were only partially successful. The sizes of the stocks were several times larger than needed for stabilization purposes. This is shown in Figure 18.3 and Table 18.3. Not until the 1960's did expensive emergency production reduction programs and an unexpected increase in the world demand for feed and food grains reduce the stocks of grain to more normal proportions. Cotton stocks, however, continued large.

On September 30, 1963, the investment of the CCC in price-support programs amounted to \$7,140,847,921—made up of loans outstanding of \$1,650,020,094 and the cost value of inventories, \$5,490,827,827. The “realized cost” of “programs primarily for stabilization of farm prices and income” in fiscal 1963 was \$2,596,873,209.<sup>8</sup> Only a part of these expenditures went directly to farmers. The rest went to other groups, such as storage agencies for storage fees,

<sup>8</sup>The “realized cost” is large in recent years partly because it includes the cost of acquiring the large inventory built up in those years. If crops were very small in subsequent years, and prices rose enough to pull substantial quantities out of storage for sale on the market, the revenue from those sales would offset a large part of the total costs in those years, and “realized cost” would be relatively small.



TABLE 18.2

CORN: AVERAGE QUARTERLY PRICES RECEIVED BY FARMERS, SUPPORT PRICES AND PRICE SUPPORT ACTIVITY, 1959-67\*

Year Beginning October 1	Prices Received Per Bushel				National Average Loan Rate Per Bushel †	Quantity Placed Under Price Support			Total Deliveries to CCC ‡
	Oct.- Dec.	Jan.- Mar.	Apr.- June	July- Sept.		Loans	Purchase agree- ments	Total	
	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Mil. bu.</i>	<i>Mil. bu.</i>	<i>Mil. bu.</i>	<i>Mil. bu.</i>
1959 . . . . .	0.986	1.01	1.08	1.07	1.12	481.6	47.9	529.5	461.1
1960 . . . . .	0.938	0.997	1.01	1.04	1.06	562.5	75.0	637.5	474.8
1961 . . . . .	1.00	0.996	1.03	1.04	1.20	581.3	77.3	658.6	634.8
1962 . . . . .	1.02	1.09	1.12	1.20	1.20	535.4	55.4	590.8	460.0
1963 . . . . .	1.08	1.12	1.16	1.14	1.07	386.1	9.2	395.3	18.0§
1964 . . . . .	1.12	1.20	1.25	1.19	1.10	215.7	¶	215.7	¶
1965 . . . . .	1.09	1.19	1.20	1.32	1.05	214.9	¶	214.9	¶
1966 . . . . .	1.28	1.27	1.26		1.00	242.9	¶	242.9	¶
1967 . . . . .					1.05				

\* Data published currently in *The Feed Situation*, USDA.

† Available to all corn producers in 1959 and 1960 and to producers participating in 1961-67 feed grain programs. Comprised of loan and support payments beginning with 1963 crop; \$1.07 loan and \$0.18 payment for 1963; \$1.10 and \$0.15 for 1964; \$1.05 and \$0.20 for 1965; \$1.00 and \$0.30 for 1966; \$1.05 and \$0.30 for 1967.

‡ Includes deliveries to CCC from original program and the resale program, and overdeliveries determined by weight of farm-stored corn.

§ Estimated; includes an allowance for deliveries of corn from the resale program.

¶ Deliveries to CCC under the Purchase Agreement Program; less than 50,000 bushels.

¶ Total deliveries will depend on deliveries from the resale program. Through June 30, 1.9 million bushels of 1964 corn was delivered and 0.2 million bushels of 1965 corn.

TABLE 18.3  
CARRYOVER OF MAJOR FARM COMMODITIES, 1950-67

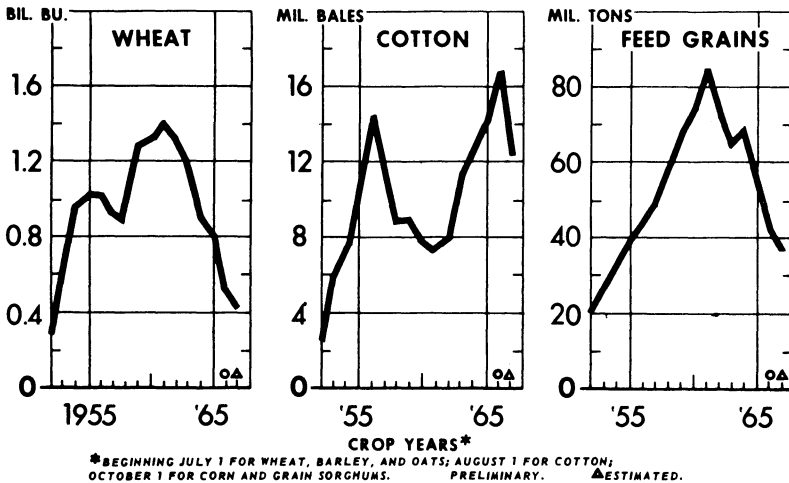
Year †	Wheat	Cotton	Feed Grains
	<i>Mil. bu.</i>	<i>Mil. bales</i>	<i>Mil. tons</i>
1950	424.7	6.8	30.5
1951	399.9	2.3	28.6
1952	256.0	2.8	20.1
1953	605.5	5.6	27.0
1954	933.5	9.7	31.7
1955	1,036.2	11.2	39.1
1956	1,033.5	14.5	43.2
1957	908.8	11.3	48.8
1958	881.4	8.7	59.0
1959	1,295.1	8.9	67.5
1960	1,313.4	7.6	74.6
1961	1,411.3	7.2	85.0
1962	1,322.0	7.8	72.2
1963	1,195.2	11.2	64.4
1964	901.4	12.4	69.3
1965	817.3	14.3	54.8
1966 ‡	535.2	16.9	42.1
1967 §	425.7	12.4	37.0

\* Source: *Handbook of Agricultural Charts*, USDA, Agr. Handbook 348, Oct., 1967, p. 10.

† Crop years beginning: Wheat, barley, and oats, July 1; cotton, August 1; corn and grain sorghums, October 1.

‡ Preliminary.

§ Estimated.



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Fig. 18.3 — Carryover of wheat, cotton, and feed grains, annually, 1955-67.

and indirectly to construction companies for the building of additional storage space. These other agencies received a substantial part of the income transferred from taxpayers. In fiscal 1958, for example, the "realized cost" of the corn program was \$271 million. Of this amount, \$110 million—more than a third—went to the grain trade and transportation agencies to cover storage and handling charges. None of this went to farmers.<sup>9</sup> The program thus was a "grain trade program" as well as a farm program.

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<sup>9</sup> Correspondence from CCC.