

several means of production controls.

1970s: This was a decade of decline in the percentage of parity price American farmers received for their output. The decade also witnessed a simultaneous buildup of cartel company control of strategic food commodities flows (shipping routes, storage, processing, and trade facilities), and political control in Washington, tied to London political and financial interests.

1974: On Dec. 10, the U.S. National Security Council, under Secretary of State Henry Kissinger, released "National Security Study Memorandum 200," a 200-page study entitled "NSSM 200: Implications of Worldwide Population Growth for U.S. Security and Overseas Interests," which stated that population growth and food production in 13 strategically located nations was a threat to U.S. security. It implicitly endorses famine.

1975: A book, *Famine 1975: America's Decision Who Will Survive*, was released by Paul Paddock, an official in the Kissinger State Department, and his brother William Paddock, a consultant to the U.S. government. Chapter nine, "Herewith is a proposal for the Use of American Food," read: "The exploding populations in the hungry nations combined with their static agricultures make famines, in many, inevitable. Their future contains a mounting increase of civil tensions, riots, and military takeovers as the growing scarcity of food forces prices higher and higher. . . . Therefore the United States must decide to which countries it will send food, to which countries it will not."

1980s-90s: The decline in parity price percentage for U.S. farmers continued. Farm policy debate and five-year farm laws shift to endorsement of "market"-based measures, even while control of markets is consolidated still further in the hands of British-centered political and financial interests, and worldwide food shortages reach crisis stage.

1980: House Agriculture Subcommittee held a hearing on Sept. 18, on ending parity as an economic reference, which was reviewed by the Government Accounting Office in its 1979-80 study "An Assessment of Parity As a Tool for Formulating and Evaluating Agricultural Policy." Giving pro-parity testimony was economist Lyndon LaRouche—who, through national television broadcasts, made this a national issue in the 1980 Presidential election, and in subsequent campaigns. Associates of the National Organization of Raw Materials, including Vince E. Rossiter and Charles Walters, also testified for parity policy, and estimated that there is a 7:1 gain to the American economy for every dollar invested in agriculture.

1987: USDA public information document, "Price Parity—An Outdated Farm Policy Tool," (USDA, Bulletin 531, by Lloyd Teigen) typifies the thinking promoted by the USDA, popular media, and agricultural business schools. A typical 1993 USDA anti-parity study was "U.S. Agriculture Continues Trend Toward Market Orientation" (USDA ERS No. 25, June 1994).

Calculating parity prices: Begin with the 'market basket'

by M.M. Baker, F. Huenefeld, R. Baker

U.S. Department of Agriculture statisticians have been calculating farm parity prices for 63 years, from the first legislation in 1933, to the present. Though specific items included have changed over that time period, the basic formulas have remained the same. Today, parity prices are computed according to the 1938 Agricultural Adjustment Act (provisions of Title III, Subtitle a, Section 301 (a)), as amended by the Agricultural Acts of 1948, 1949, and 1956, and other directives.

To understand the approach, however, it is helpful to go back to the period of World War II, to the explanations prepared then by the USDA for the general public, in order to make clear to people how and why parity worked to aid the wartime production effort, while at the same time it did not result in windfall profits for farmers, nor inflated prices to consumers.

A USDA pamphlet, "Farm Parity Prices and the War," published in November 1942, begins with this introduction: "What does 'parity price' mean?"

"Parity price means a price for the farmer's product which will give it an exchange value, for things the farmer needs to buy, equivalent to that in a specified base period. The base period mostly used as 'par' has been the five pre-war years, 1909-14. . . .

"How parity price is calculated

"1. A base price for the period 1909-14 is determined. This is done by averaging the prices reported by farmers, to the Department of Agriculture, for the 60 months beginning August 1909 and ending July 1914. For example, the average price of cotton during this period was 12.4¢ a pound; wheat averaged 88.4¢ a bushel; corn 64.2¢ a bushel.

"2. An index of prices paid, including taxes on real estate and interest paid, is calculated. In this are reckoned the prices of items used in family living and in farm production. [See **Table 1** for the full list of these items as it was kept in 1971-73, which was updated from time to time compared to earlier years.] 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 or indexes of prices paid. The tax and interest data are calculated as rates per acre and converted into index form.

“To obtain the final ‘index of prices paid, interest, and taxes,’ the index of prices paid for commodities used in living is given a weight of nearly one-half, and the indexes of commodities used in production and interest and taxes per acre are likewise given a weight of about one-half. . . .

“3. The third step in calculating parity prices is to adjust the base-period prices by the index of prices paid, interest, and taxes; in some cases adjustment is also made for seasonal variations from the base-period averages. . . .

“Parity prices, of course, change as the index of prices paid, interest, and taxes change—that is, parity is a relative, rather than a fixed-price concept.

“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 specified in the law is August 1919–July 1929. Parity for these commodities, as well as for tobacco, is calculated in the same way as for others, except that allowances for interest and taxes are not included in the index used and, of course, the different base period is used.”

The pamphlet presents graphs of the relationship of farmers’ prices paid, prices received, and the parity ratio, from 1910–42, for several commodities. But one example completes the explanation here.

“In the case of potatoes, for example, for the month of January 1942, the average base price in the postwar [World War I] period cited was 113.8¢ per bushel; the index of prices paid by farmers for that period was 91. Hence, $113.8 \times .91$ gives 103.6¢ per bushel as the parity price of potatoes in mid-January 1942.”

The ‘weightings’ and the changes

Since the time of this simple 1940s explanation of what is involved in calculating parity, there have been periodic changes in the make-up of the “farmer market basket” lists of both family living and production input items, and in weightings of these items. Likewise, the mix of commodities produced by farmers, for which the prices they receive has been kept, has changed over time.

Table 1 gives a partial list of commodities for which prices to farmers are kept. Over a period of decades, the composition and relative importance of these commodities has changed. Some examples are the rise in importance of soybeans; the decline of lamb and mutton; the increase in broccoli, and the decline in such crops as turnips. These shifts have been taken into account.

For the “prices paid by the farmer” side of the parity equation, it is obvious that changes in the items listed should become necessary, as new inventions, materials, and commodities become available. Table 1 lists a total of 310 items, whereas in 1943, there were only 174 items in all.

First, notice that the prices are weighted overall at about 30% for “family living” expenses, including 8.8% for medical, health care, education, and recreation, and about 57% for

production, with interest at 4%, taxes at 2.8%, and wage costs at 5.2%. This contrasts with the 50-50 weighting of family living expenses to production costs, which was used for parity calculations during World War II, as noted above.

As of the 1970s, production costs came to include more agricultural chemicals, machinery, and related items, because the farm production cycle had become more technologically intensive. Such items as plastic tubing (part of the PVC “plasticulture” revolution) were unheard of in the 1940s.

In 1943, the basic farm family food items totalled 22, including lard, rolled oats, and other staples that were later dropped. The 1971–73 list of 40 food items includes orange juice concentrate, margarine, and other items that were new or uncommon in earlier times.

Differences in the housing and furnishings lists include coal for home heating in the 1940s, which was dropped in the 1970s; and the addition of home air conditioners. There were no separate listings at all for agricultural chemicals in the 1940s, apart from fertilizers, whereas the 1970s lists include seven.

More radical changes

Since the 1970s, apart from the expected changes over time in weightings and composition of the “farmer’s market basket,” the most recent proposals and practices of the USDA for calculating parity prices are more extreme. A base weighting period of 1990–92 has been brought into use as an alternative to the 1910–14 base period calculations—which are still done. And the indexes are now based on moving average weights, rather than fixed weights, as shown for 1971–73.

In the 1990–92-based lists, the Consumer Price Index (CPI) replaces the list of “family living” commodities, and is weighted (on average) at about 19% for the overall prices-paid ratio. The production component of items is weighted at 65.6%. New subcomponents of this production list include, for example, a total of six herbicides (together weighted at 2.1%), six insecticides (less than 1%), seven fungicides, and other chemicals.

In addition to the CPI and production lists, new components, called “other services,” are added (weighted at 9.7%), including business computers, office supplies, and contract labor. Another new component is rent, weighted at 8%.

An overview of how the calculations of parity have been made in the past 25 years is available from two USDA publications:

1. “Revised Prices Received and Paid Indexes, United States, 1975–93; for Base Periods 1910–14=100 and 1990–92=100,” by the USDA, National Agricultural Statistics Service, Bulletin No. 917, 1993; 52 pages, reissued Feb. 15, 1995.

2. “Reweightings and Reconstructing USDA’s Indexes of Prices Received and Paid by Farmers,” USDA, National Agricultural Statistics Service, Economics Statistics Branch, Report No. ESB-95-01, January 1995, 52 pages (currently under revision).

TABLE 1

The farmer's market basket

(Materials included in the index of prices paid by farmers, 1971-73)

Group and commodity	Relative weight in determination of parity price (%)	Group and commodity	Relative weight in determination of parity price (%)	Group and commodity	Relative weight in determination of parity price (%)	Group and commodity	Relative weight in determination of parity price (%)
Family living	30.4	Women's hose	.07	Gypsum board	.30	New autos, medium priced, standard size	.24
Food	6.4	Women's shoes	.13	Electric cable	.18	Used autos	1.06
Flour	.09	Women's handbags	.03	Water pump, deep well	.19	New pick-up trucks	.27
White bread	.25	Girls' coats, heavy	.02	Iron pipe, galvanized	.11	Used pick-up trucks	.09
Soda crackers	.15	Girls' dresses	.03	Plastic tubing	.08	Gasoline, regular	1.51
Corn flakes	.18	Girls' anklets	.02	Copper tubing	.11	Lubrication	.19
Round steak	.55	Girls' shoes	.05	Kitchen sink	.08	Auto tires	.33
Hamburger	.40	Men's winter coats, or topcoats	.06	Bath tub	.11	Storage batteries	.06
Bologna	.21	Men's chore jackets	.04	Toilet	.08	Motor tune-up	.35
Pork chops	.36	Men's suits	.08	Wall paint, interior	.12		
Bacon, sliced	.23	Men's sport coats	.03	House paint, exterior	.12	Medical and health care	2.1
Frying chicken	.21	Men's slacks, dress	.06	Mixing faucet, sink	.03		
Frozen haddock	.15	Men's slacks	.03	Nails	.03	Education, recreation, and other	6.7
Fluid, whole milk	.49	Men's overalls	.09	Screen wire	.04		
Cheese, American	.20	Men's shirts, dress	.06	Kitchen cabinets	.20	Production	57.6
Ice cream	.12	Men's shirts, sport	.05	Sheets	.07		
Eggs	.19	Men's shirts, work	.03	Bath towels	.03	Feed (22 items)	11.8
Potatoes	.15	Men's underwear, short	.03	Kitchen curtains	.09	Corn	2.11
Navy beans	.14	Men's undershirt, T-style	.02	Living room set	.31	Oats	.17
Head lettuce	.19	Men's undershirt, thermal knit	.02	Lounge or recliner chair	.05	Barley	.10
Tomatoes	.09	Men's socks, work	.03	Floor lamps	.03	Sorghum	.11
Apples	.18	Men's shoes, dress	.10	Dining room set	.05	Alfalfa hay, baled	.68
Bananas	.05	Men's shoes, work	.04	Dinette set	.02	Other hay, baled	.55
Oranges	.09	Men's overshoes	.02	Bedroom sets	.08	Laying mash	1.14
Canned corn	.08	Men's hats, felt	.02	Innerspring mattress and box springs	.03	Chick starter	.22
Canned peas	.06	Men's gloves, work	.03	Nylon carpet	.23	Broiler grower	1.36
Orange juice, canned	.03	Boys' jackets, lined	.01	Linoleum	.02	Turkey grower	.09
Pineapple, canned	.04	Boys' sweaters, pullover	.01	Dinner plates	.05	Dairy feed, 14%	.45
Peaches, canned	.06	Boys' dress outfits	.01	Electric ranges	.12	Dairy feed, 16%	1.26
Peas, frozen	.06	Boys' jeans, denim	.07	Refrigerator	.12	Dairy feed, 32%	.31
Orange juice, concentrate	.06	Boys' shoes	.07	Home freezers	.05	Hog feed, 14-18%	.80
Sugar	.09	Fabric, gingham	.16	Washing machines	.11	Hog feed, over 29%	.98
Sirup, cane	.08			Clothes dryers	.04	Beef feed, over 30%	1.04
Gelatin, dessert	.08	Housing (60 items)	7.8	Vacuum cleaners	.04	Soybean meal, 44%	.22
Vegetable shortening	.10	Brick, common	.37	Sewing machines	.04	Cottonseed meal, 41%	.07
Margarine	.08	Blocks, concrete	.19	Lawn mowers, power	.12	Middlings	.01
Butter	.08	Portland cement	.18	Electric toasters	.02	Corn meal	N.A.
Coffee	.24	Lumber, pine 2 x 4s	.10	Electric irons	.02	Stock salt	.07
Cola drinks	.18	Lumber, firs 2 x 4s	.15	Handsaw, electric	.02	Liquid molasses	.06
Peanut butter	.21	Air conditioners	.16	L.P. gas	.41		
Catsup	.14	Asbestos siding	.02	Furnace or fuel oil	.37	Feeder livestock (4 items)	11.7
Clothing (41 items)	2.2	Dressed boards	.12	Electricity	.94	Dairy cows	1.06
Women's coats, heavy	.08	Drop siding, pine	.21	Telephone service	.42	Cattle and calves	9.14
Women's sweaters	.04	Flooring, yellow pine	.03	Laundry detergent	.18	Hogs	.76
Women's suits, 2-piece	.23	Flooring, oak	.09	Auto and auto supplies (11 items)	5.2	Baby chicks	.74
Women's dresses, casual	.14	Plywood, interior	.10	New autos, intermediate size	.35	Seed (15 items)	1.8
Women's blouses	.08	Doors, interior	.08	New autos, low priced, standard size	.75	Corn, hybrid	.78
Women's slips	.01	House windows	.17			Wheat	.14
Women's girdles	.01	Shingles, asphalt	.16			Oats	.07
Women's panties	.06	Insulating sheathing	.04				
Women's nightgowns	.04						

continued

TABLE 1

The farmer's market basket (continued)

(Materials included in the index of prices paid by farmers, 1971-73)

Group and commodity	Relative weight in determination of parity price (%)	Group and commodity	Relative weight in determination of parity price (%)	Group and commodity	Relative weight in determination of parity price (%)	Group and commodity	Relative weight in determination of parity price (%)
Barley	.05	Hoes	.01	Nails	.10	Row crop cultivators,	
Grain sorghum, hybrid	.07	Pitchforks	.01	Exterior paint	.09	2-row	.03
Soybeans	.23	Shovels	.01	Shingles, asphalt	.09	Corn planter, 4-row	.18
Potatoes, Irish	.08	Hand sprayer	.01	Galvanized iron pipe	.10	Grain drills, plain	.03
Cottonseed	.06	End wrench, adj.	.06	Insulating board	.03	Grain drills, with fertilizer attachment	.02
Peanuts	.04	Chain saw, gas	.08	Pump, deep well jet	.14	Grain drills, press	.03
Rice	.03	Electric drill	.04	Power sprayers	.07	Mowers	.18
Alfalfa, certified	.10	Acetylene welder	.03	Autos and trucks		Mower conditioners	.10
Red clover	.04	Motor oil, non-detergent	.06	(8 items)	2.5	Pick-up balers	.17
Ryegrass, annual	.06	Motor oil, heavy duty	.09	New autos, intermediate size	1.3	Forage harvester, P.T.O., flail type	.11
Tall fescue	.03	Motor oil, all weather	.08	New autos, low priced, standard size	.27	Forage harvester, P.T.O., with pick-up attachment	.05
Sudan grass	.02	Grease, 35 lb. pail	.08	New autos, medium priced, standard size	.09	Wagon boxes	.08
Fertilizer (16 items)	4.2	Anti-freeze	.04	Used autos	.22	Wagon or trailers	.21
5-10-10	.16	Auto tires, bias-belted	.05	New pick-up trucks	1.18	Hammer mills	.14
5-10-15	.19	Auto tires, conventional	.05	Used pick-up trucks	.42	Manure spreaders	.06
6-24-24	.41	Truck tires, 6 ply	.13	Trucks, new, 1.5-2 ton	.09	Grain elevators	.15
8-32-16	.13	Truck tires, 10 ply	.09	Trucks, used 1.5-2 ton	.09	Manure loaders, tractor	.06
10-10-10	.54	Tractor tires	.27	Tractors and self-propelled machinery (10 items)	4.5	Milk coolers	.25
10-20-10	.14	Storage batteries, 6 volt	.03	Tractors, 30-39 P.T.O., M.P.	.64	Farm services and cash rent	7.4
18-46-0	.53	Storage batteries, 12 volt	.10	Tractors, 50-59 P.T.O., M.P.	.61	Cash rent per acre	2.22
16-20-0	.07	Spark plugs	.05	Tractors, 70-79 P.T.O., M.P.	.30	Custom tillage per acre	.10
0-20-20	.12	Oil filter	.11	Tractors, 90-99 P.T.O., M.P.	1.48	Custom planting	.10
Ammonium nitrate	.48	Water heater	.02	Combines, small	.25	Custom harvesting com per acre	.45
Anhydrous ammonia	.42	Lubrication, auto	.04	Combines, medium	.49	Custom harvesting small grain per acre	.61
Nitrogen solution, 32%	.40	Relining brakes, labor and materials	.09	Combine-com head	.14	Custom haying per acre	.53
Ordinary superphosphate (0-20-0)	.04	Milk pails	.03	Windrower	.13	Transportation	1.16
Concentrate superphosphate (0-45-0)	.13	Baler twine	.13	Cotton picker	.23	Piece rate labor	.85
Muriate of potash, 60%	.24	Rope	.02	Other machinery and implements (26 items)	2.7	Telephone monthly bill	.42
Limestone	.19	Wire	.04	Plows, moldboard, 2 bottom	.07	Insurance	.95
Agricultural chemicals (7 items)	1.7	Magazines	.04	Plows, moldboard, 3 bottom	.16	Interest	4.0
Atrazine	.66	Fruit boxes	.13	Disk tandem, 9-11 ft.	.14	Taxes	2.8
2-4, D	.43	Lug boxes	.06	Disk tandem, 12-14 ft.	.10	Wage rates	5.2
Toxaphene	.14	Vegetable crates	.06	Hoe, rotary	.04	Total—commodities, interest, taxes, and wage rates	100.0
Carbaryl	.07	Open mesh bags	.06	Field cultivators, 10-12 ft.	.03		
Parathion	.21	Building and fencing (21 items)	3.6	Field cultivators, 17-19 ft.	.03		
Aldrin	.07	Wood posts	.12	Row crop cultivators, 4-row	.08		
Zineb	.12	Rough boards	.13				
Fuels and energy (5 items)	3.5	Barbed wire, 2 point	.05				
Gasoline, tank truck (bulk)	1.47	Barbed wire, 4 point	.06				
Gasoline, filling station	.63	Field and stock fence	.08				
Diesel fuel	.51	Fence staples	.05				
L.P. gas	.13	Electric fence charges	.02				
Electricity	.77	Portland cement	.32				
Farm and motor supplies (35 items)	2.2	Concrete blocks	.39				
Nail hammers	.02	Lumber, pine 2 x 4	.25				
		Lumber, fir 2 x 4	.31				
		Dressed boards	.07				
		Plywood, interior	.18				
		Roofing, galvanized steel	.90				