

## WHOLESALE PRICES AT CINCINNATI AND NEW YORK

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The geographic location of Cincinnati determined its early supremacy in the commercial development of the West. Cincinnati is located on the Ohio River, which was the main highway of commerce to the interior before the development of canals and railroads. Numerous tributaries of the Ohio furnished avenues of communication for steamboats, flatboats, keel boats, barges, and other river craft. In 1844 the products of Cincinnati were shipped to market by way of the Ohio and Mississippi Rivers to New Orleans, and thence to all parts of the world. With the development of canals and subsequently railroads, trade was diverted from the southern route to the North and the East. For years, specie payments and bills of exchange were on New Orleans, but later, with the change in the route of trade, the bills were drawn on New York.

Cincinnati was significant for another reason. It was a border city, where products of two different types of agriculture were brought into close contact. The products of free labor of the North were exchanged for the products of slave labor of the South. The city was a meeting place for traders and merchants of the two sections.

Cincinnati was in close proximity to extensive coal, oil, iron, and gas fields. With the development of these, Cincinnati became a manufacturing center as well as an important wholesale distributing point.

Prior to 1867, prices at Cincinnati reflected the movement of trade in the Ohio valley. Since 1872, prices at Cincinnati have been similar to those at New York.

### PURPOSE OF THE STUDY, AND METHOD OF ANALYSIS

The purpose of this study is to show the movement of wholesale prices of individual commodities and of groups of commodities at Cincinnati and New York for the 71-year period from 1844 to 1914 inclusive.

For comparison, monthly wholesale prices of individual commodities and of groups of commodities are expressed in terms of index numbers. Prices are missing for the following periods at Cincinnati: nine months, January 1844 to September 1844; twenty-two months, November 1846 to August 1848; fifty months, January 1868 to February 1872; one month, May 1883.

Index numbers were prepared for eight major groups: farm products, foods, hides and leather, textiles, fuel and lighting, metals and metal

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materials, and miscellaneous products. These groups include the calculation of the index numbers of wholesale prices of all additional index numbers of wholesale prices at Cincinnati for six special groups: livestock, meats and meat products and vegetables, cotton goods, and furs.

### VALUE OF THE STUDY

The study is based on a comparison of prices in two cities, Cincinnati and New York. During the period from 1844 to 1914, New York was an old, well-established market on the Atlantic seaboard, with direct communication and trade routes to all parts of the world; whereas Cincinnati was an interior market which had formerly been the center of trade for the entire frontier, but, with changes in modes of transportation and the development of the railroads, had become a secondary market. For commodities to reach the Atlantic seaboard, it was necessary to make a long and risky water shipment down the Ohio and Mississippi Rivers, across the Gulf of Mexico, and thence along the Atlantic Coast. During the period covered, New York was relatively free from many of the common interruptions to trade and communication, whereas Cincinnati was subjected to innumerable difficulties such as poor river service, lack of railroads, canals, and roads, and the difficulties presented during the Civil War with the subsequent closing of the Mississippi River to navigation.

The index numbers of wholesale prices make it possible to examine some of the changes in price movements in the two markets, Cincinnati and New York. Prices of individual commodities and of groups of commodities at Cincinnati were compared with similar prices at New York. Although the grades of many commodities at Cincinnati and New York were not identical, the prices were fairly similar. The greatest difference between prices on the two markets occurred in the early period, when the cities were not connected by dependable transportation. About 1880, Cincinnati was definitely connected with the East and the South by railroads. Thereafter, prices at Cincinnati moved closely with prices at New York. Prior to that time, the prices at Cincinnati fluctuated more violently, largely because of lack of dependable transportation and communication. If quality and grade of the commodities had been similar, the range in prices would probably have been less.

### SOURCE OF MATERIAL

The wholesale prices at Cincinnati were taken from the weekly *Cincinnati Price Current*, which was published continuously from 1844 to 1912. Bound volumes of the *Price Current* are to be found in the Cornell University Library for the following years: October 1844 to August 1846; September 1849 to December 1867; March 1872 to December 1900;

January 1902 to December 1912; also, bound volumes of the *Cincinnati Daily Price Current* for 1878, 1879, 1881, 1889, 1891, and 1895 to 1914. Through a personal loan, a copy of the weekly *Cincinnati Price Current* for 1901 was obtained. This loan makes the price data practically complete from 1872 to 1914, with the exception of one month.

The index numbers of wholesale prices of individual commodities and of groups of commodities at New York (1876-1891 = 100) were obtained from an unpublished manuscript prepared by G. F. Warren and F. A. Pearson. The index numbers of groups were published on the 1910-1914 base.<sup>1</sup>

#### COMPARISON OF PRICE MOVEMENTS OF INDIVIDUAL COMMODITIES AT CINCINNATI AND AT NEW YORK

When actual prices of corn at Cincinnati and at New York were compared, the greatest difference between the two markets was found in the period previous to 1860 (figure 1). After 1872, the prices at Cincinnati approached more closely the New York prices. With the passing of time, the actual cash difference became smaller and smaller.

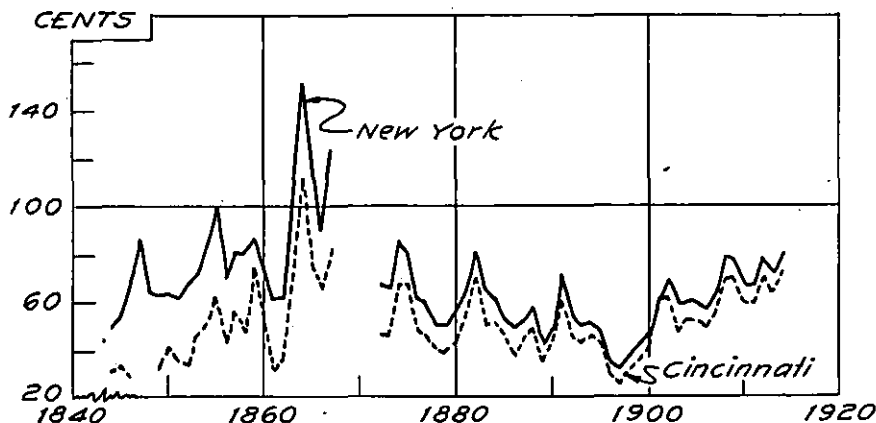


FIGURE 1. WHOLESALE PRICES OF CORN AT CINCINNATI AND NEW YORK, 1844 TO 1914

With passing time, the Cincinnati price of corn approached the New York price

Index numbers of wholesale prices of corn at Cincinnati and at New York were calculated using a 16-year base period (1876-1891 = 100). A comparison of the index numbers (figure 2) shows that prices of corn at Cincinnati advanced more slowly to New York prices. This was particularly evident before 1870.

<sup>1</sup> Wholesale prices for 213 years, 1800 to 1932. By G. F. Warren, F. A. Pearson, and Herman M. Stoker. Cornell Univ. Agr. Exp. Sta. Memoir 142, p. 6-10, 84-102, 109-111. 1932.

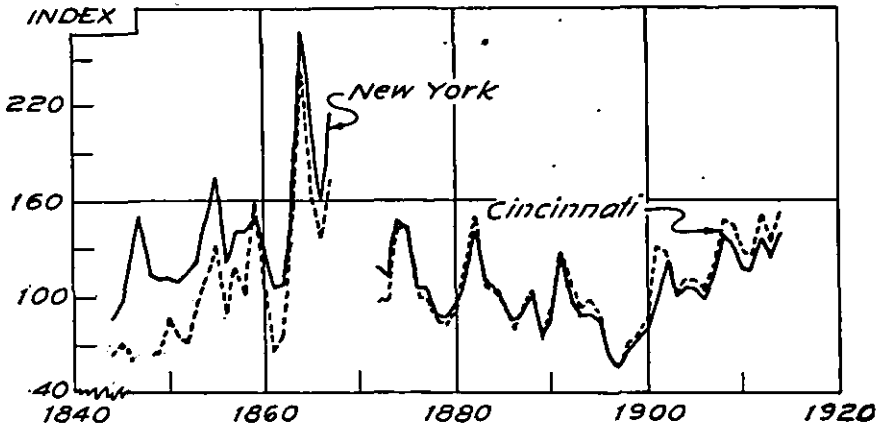


FIGURE 2. INDEX NUMBERS OF WHOLESALE PRICES OF CORN AT CINCINNATI AND NEW YORK, 1844 TO 1914  
(1876-1891 = 100)

Prior to 1860, index numbers of wholesale prices of corn at Cincinnati advanced relatively to the New York index

The greatest spread between wholesale prices of corn in the two markets occurred prior to the expansion of improved methods of transportation. Since 1872, the price of corn at Cincinnati has fluctuated approximately with the New York price. The difference in the prices on the two markets represents the cost of transportation and distribution.

Before 1864, the index numbers of prices of wheat at Cincinnati advanced in relation to prices at New York (figure 3). After 1872, the Cincinnati

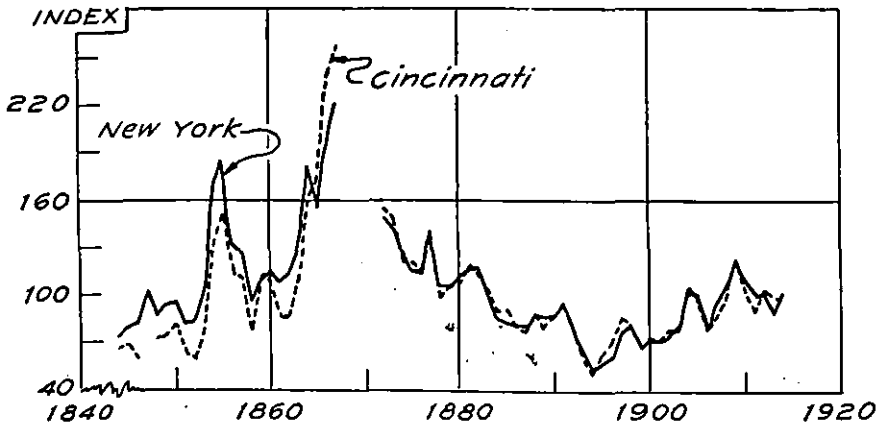


FIGURE 3. INDEX NUMBERS OF WHOLESALE PRICES OF WHEAT AT CINCINNATI AND NEW YORK, 1844 TO 1914  
(1876-1891 = 100)

There was a close association between the movement of wheat prices at Cincinnati and at New York. Wheat prices fluctuated less violently than did corn prices

index fluctuated rather closely with the New York index, in spite of the decrease in actual cash difference over the period.

The violent divergence of the index numbers of prices of butter in the two markets from 1885 to 1914 (figure 4) was due possibly to grade and quality of the product.

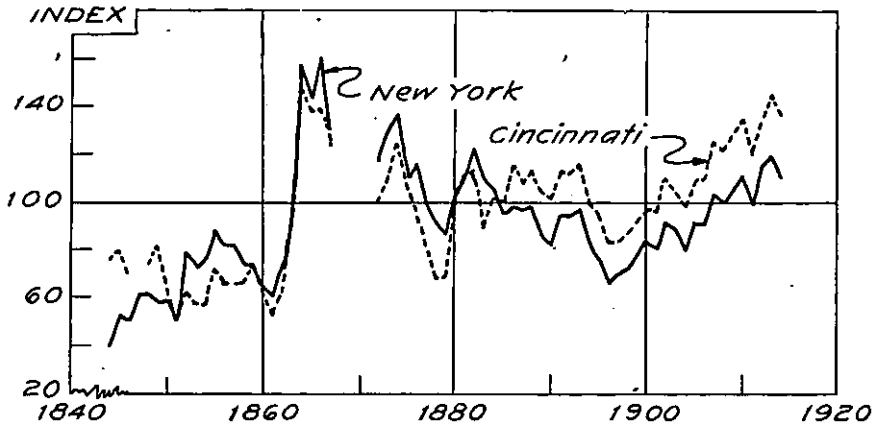


FIGURE 4. INDEX NUMBERS OF WHOLESALE PRICES OF BUTTER AT CINCINNATI AND NEW YORK, 1844 TO 1914 (1876-1891 = 100)

After 1885, the Cincinnati index diverged materially from the New York index: this was probably owing to grade and quality of the butter

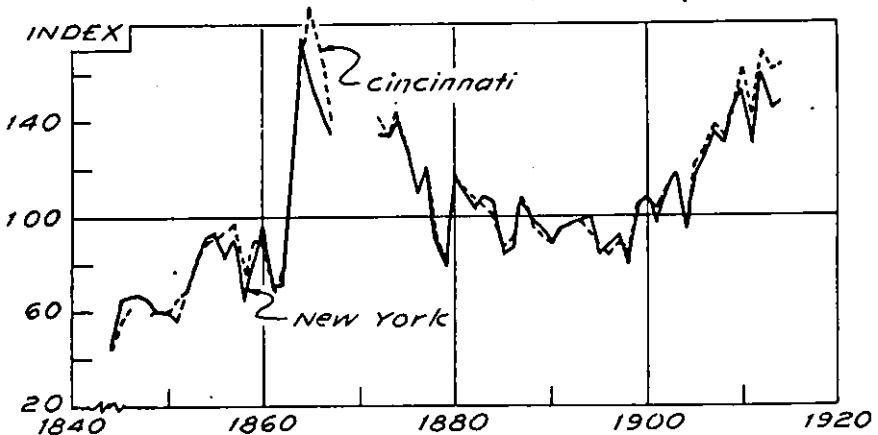


FIGURE 5. INDEX NUMBERS OF WHOLESALE PRICES OF CHEESE AT CINCINNATI AND NEW YORK, 1844 TO 1914 (1876-1891 = 100)

The wholesale prices of cheese in the two markets moved together

The index numbers of prices of cheese in the two markets moved together over the 71 years (figure 5). In the fifties, certain railroads were completed in northern Ohio, which diverted the surplus cheese from the Western Reserve to eastern markets. Previous to 1855, Cincinnati was the market for this surplus-producing area. With the new railroads, the products of the Western Reserve moved to the cities of the East, rather than to the South as was formerly the case. Railroad transportation kept the two markets in line, and cheese dealers constantly met sharp competition. New York cheese dealers paid high prices, and supplies tended to move to New York instead of to Cincinnati.

Prior to 1900, the index numbers of wholesale prices of eggs at Cincinnati were similar to the index numbers of wholesale prices at New York (figure 6). The rapid divergence of the two indexes since 1900 was due probably to grade and quality of the product.

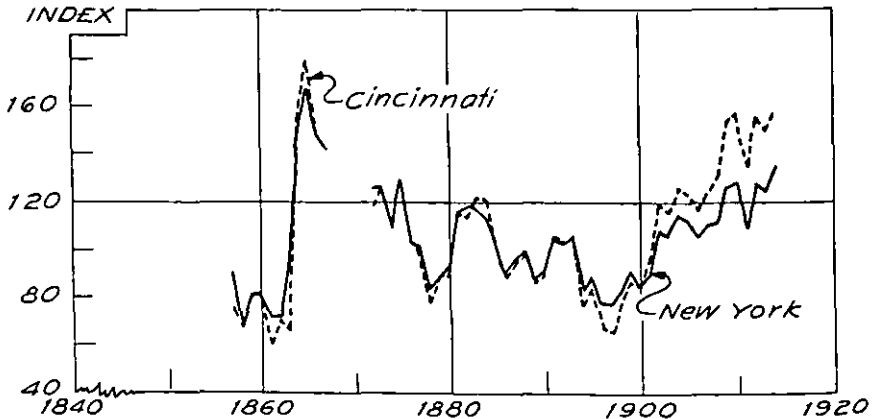


FIGURE 6. INDEX NUMBERS OF WHOLESALE PRICES OF EGGS AT CINCINNATI AND NEW YORK, 1857 TO 1914  
(1870-1891 = 100)

The index numbers of egg prices at Cincinnati followed the New York index until about 1900; the difference after that time was probably due to grade and quality of the eggs

For five individual commodities — corn, wheat, butter, cheese, and eggs — the price movements at Cincinnati and at New York were similar over the entire period. The prices of these commodities at Cincinnati advanced relatively to the prices at New York. The greatest difference between prices at Cincinnati and at New York occurred prior to 1860. Differences were due to grade and quality of the product at either one or both of the markets. The development of improved methods of transportation reduced the spread between the markets. Despite changes in methods of transportation, grades, and quality, there was a striking similarity during the entire period in the price movements for the two markets.

## COMPARISON OF INDEX NUMBERS OF WHOLESALE PRICES AT CINCINNATI AND AT NEW YORK

Comparisons were made between the following groups of index numbers of wholesale prices at Cincinnati and similar indexes of prices at New York, from 1844 to 1893: farm products, foods, fuel and lighting, metals and metal products, and building materials.

Prior to 1860, prices of farm products were lower at Cincinnati than at New York (figure 7); after 1872, the prices on the two markets moved together, even though the commodities were not identical as to grade, quality, and number.

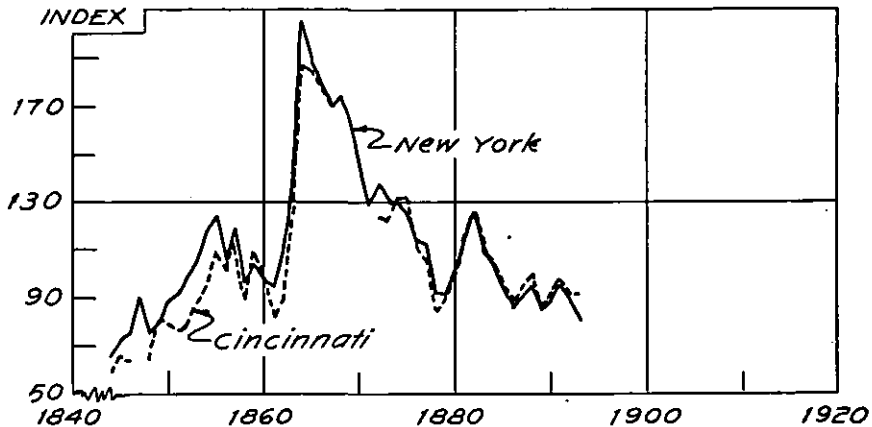


FIGURE 7. INDEX NUMBERS OF WHOLESALE PRICES OF FARM PRODUCTS AT CINCINNATI AND NEW YORK, 1844 TO 1893

(1876-1891 = 100)

For 50 years, the prices of farm products at Cincinnati followed approximately the prices of farm products at New York. The greatest divergence occurred before 1860, when farm products at Cincinnati were cheap

Index numbers of prices of foods at Cincinnati moved similarly to those for New York, and for most of the period before 1860 foods were slightly cheaper at Cincinnati (figure 8). The food index moved similarly to the farm-products index at Cincinnati, though the prices were less flexible because imported and processed commodities were included in the food index.

Prior to 1867, prices of fuel and lighting were higher and showed greater fluctuations at Cincinnati than at New York (figure 9); after that, they moved much alike on the two markets, though the Cincinnati index fluctuated more. The greater divergence at Cincinnati was due to the irregularities of river transportation of coal. With the development of railroad facilities, the transportation of coal was no longer left to the

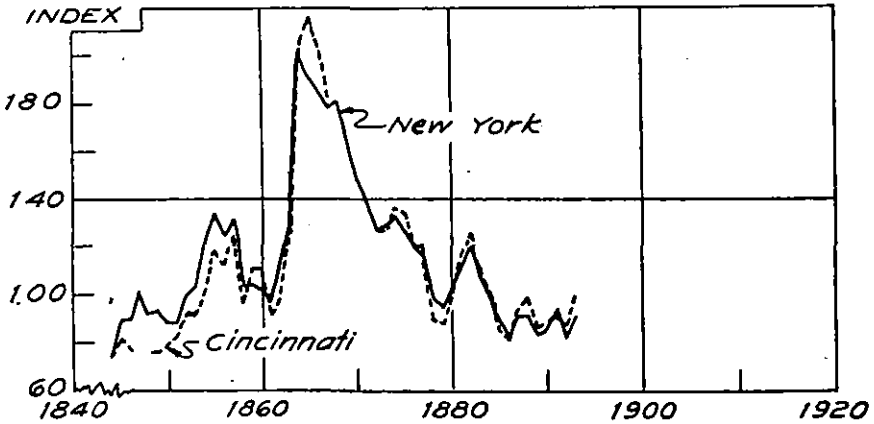


FIGURE 8. INDEX NUMBERS OF WHOLESALE PRICES OF FOODS AT CINCINNATI AND NEW YORK, 1844 TO 1893

(1876-1891 = 100)

For the 50-year period, the two indexes of foods moved similarly. In the early part of the period, foods were slightly cheaper at Cincinnati

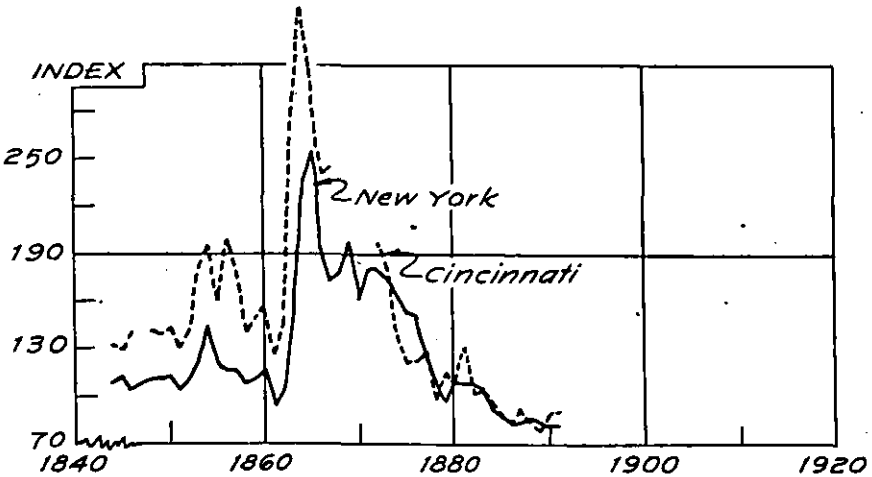


FIGURE 9. INDEX NUMBERS OF WHOLESALE PRICES OF FUEL AND LIGHTING AT CINCINNATI AND NEW YORK, 1844 TO 1891

(1876-1891 = 100)

Prices of fuel and lighting fluctuated violently at Cincinnati because of irregularity of river transportation. Prior to the seventies, coal prices fluctuated violently; in a few days coal would jump from 8 to 50 cents a bushel. With the coming of railroads, the fluctuations were less. New York was not subject to such violent changes in prices

caprice of weather and river conditions. New York escaped such fluctuations, because coal could be either obtained from domestic sources or imported from abroad.



Index numbers of prices of metals and metal products at Cincinnati and at New York were never far apart (figure 10). The greatest divergence occurred before 1860.

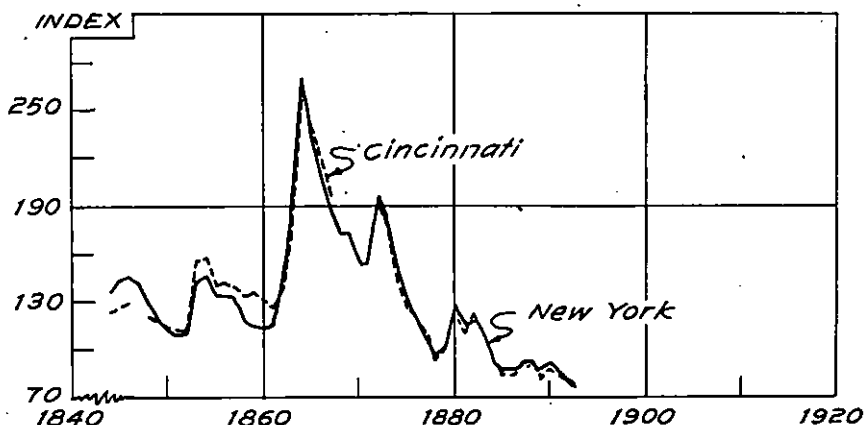


FIGURE 10. INDEX NUMBERS OF WHOLESALE PRICES OF METALS AND METAL PRODUCTS AT CINCINNATI AND NEW YORK, 1844 TO 1893  
(1876-1891 = 100)

For the 50-year period, the two indexes of wholesale prices of metals and metal products were never far apart

When prices of building materials at Cincinnati and New York were compared, the two indexes were similar (figure 11). Prices in both markets were considerably higher at the end of the period, 1914.

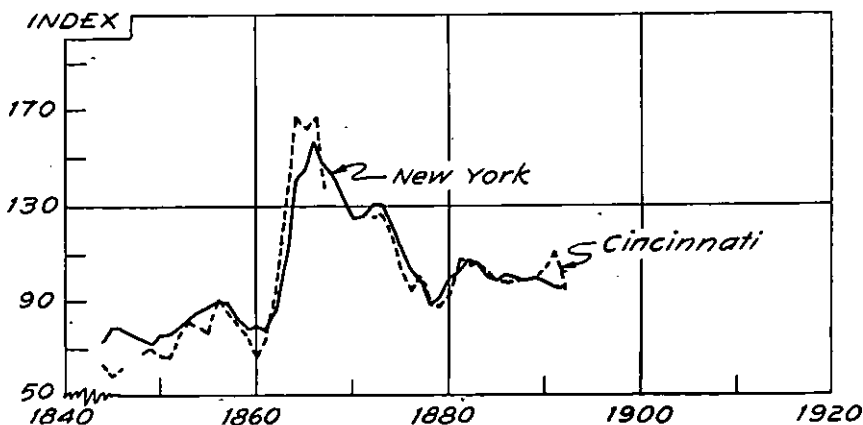


FIGURE 11. INDEX NUMBERS OF WHOLESALE PRICES OF BUILDING MATERIALS AT CINCINNATI AND NEW YORK, 1844 TO 1892  
(1876-1891 = 100)

For the 40-year period, prices of building materials in the two markets moved similarly

For the five groups of commodities — farm products, foods, fuel and lighting, metals and metal products, and building materials — the index numbers of wholesale price movements were similar over the entire period at Cincinnati and at New York. The greatest divergence between group prices occurred before 1860. Railroad transportation tended to keep index numbers of wholesale prices together in the two markets.

#### INDEX NUMBERS OF WHOLESALE PRICES OF ALL COMMODITIES

The index numbers of wholesale prices of all commodities were calculated. In making one of the two all-commodity indexes, constant weights were used; in making the other, variable weights were used. The index numbers with variable group weights were lower in the earlier years than the index numbers with constant group weights. The index numbers with variable group weights probably best represent the general price level at Cincinnati from 1844 to 1890. After 1890, there were no differences in the two index numbers.

#### INDEX NUMBERS OF SPECIAL GROUPS AT CINCINNATI

The trend of the index numbers of wholesale prices of livestock was about the same as that for the average of all commodities. The index of livestock prices showed greater fluctuations than did the index of all commodities (figure 12). The index of wholesale prices of grains fluctuated closely with and did not deviate far from the general level of all commodities (figure 13). The index numbers of wholesale prices of fruits and vegetables fluctuated more violently than did the index of all commodities (figure 14). In this group, four commodities were imported while six commodities were produced in the Ohio valley.

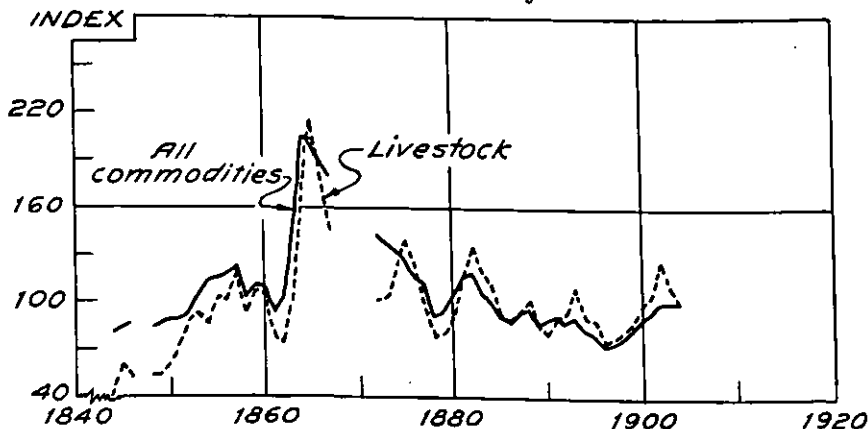


FIGURE 12. INDEX NUMBERS OF WHOLESALE PRICES OF LIVESTOCK AND ALL COMMODITIES AT CINCINNATI, 1844 TO 1904  
(1876-1891 = 100)

Livestock prices followed the general level of all commodities

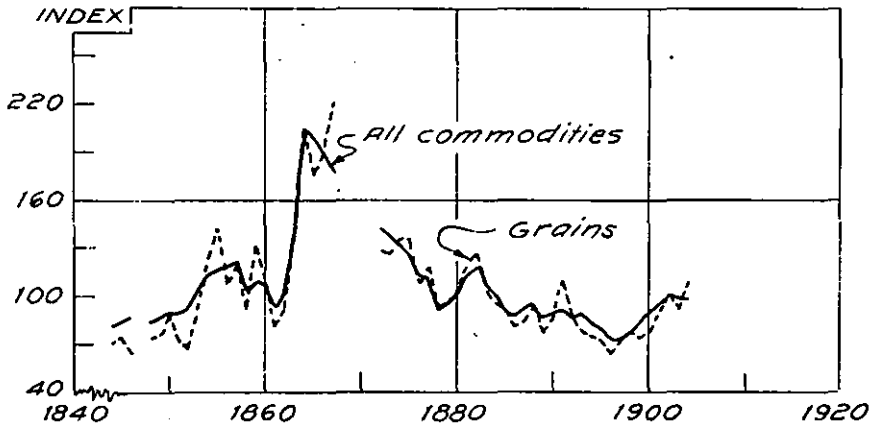


FIGURE 13. INDEX NUMBERS OF WHOLESALE PRICES OF GRAINS AND ALL COMMODITIES AT CINCINNATI, 1844 TO 1904 (1876-1891 = 100)

Grain prices moved with the general price level of all commodities

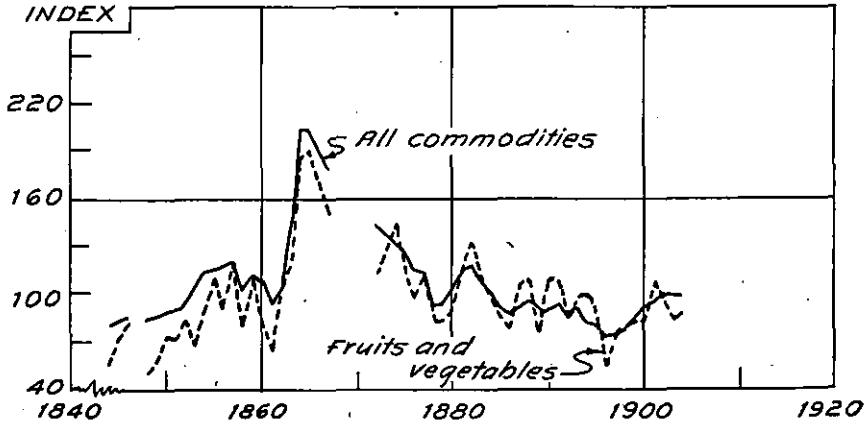


FIGURE 14. INDEX NUMBERS OF WHOLESALE PRICES OF FRUITS AND VEGETABLES AND ALL COMMODITIES AT CINCINNATI, 1844 TO 1904 (1876-1891 = 100)

The prices of fruits and vegetables moved with, but fluctuated more than, the index of all commodities

Monthly and annual index numbers are given in tables 1 to 10 for all commodities with constant and with variable group weights, and for the eight major groups. The index numbers for the six special groups are presented in tables 11 to 16. These six groups were not incorporated in the all-commodity index number; but all the products except furs were included with the farm-products, the foods, or the textiles group.



TABLE 2. INDEX NUMBERS OF WHOLESALE PRICES OF FARM PRODUCTS AT CINCINNATI, 1844 to 1914 (1876-1891 = 100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1844.										56	60	60	59
1845.	81	81	83	86	70	72	85	59	61	87	88	76	66
1846.	76	69	70	69	70	69	59	50	54	60			64
1847.													
1848.									60	65	65	67	64
1849.	66	66	67	64	66	66	68	69	71	69	70	72	68
1850.	79	82	80	81	84	82	77	77	74	76	79	82	79
1851.	84	81	81	79	79	77	76	74	71	77	73	77	77
1852.	79	73	74	76	79	78	76	76	78	82	84	88	79
1853.	89	86	86	86	87	88	88	87	90	90	88	86	88
1854.	90	95	94	97	101	98	87	92	98	99	99	107	97
1855.	106	107	115	122	122	119	103	103	101	107	106	107	110
1856.	99	100	99	95	93	96	98	101	110	109	105	114	102
1857.	117	118	121	127	140	131	124	117	108	94	88	84	114
1858.	81	80	86	83	83	80	83	91	95	94	101	109	89
1859.	111	120	124	117	123	118	114	101	100	100	94	104	110
1860.	105	109	106	106	106	98	97	95	100	96	94	92	100
1861.	94	92	90	87	83	79	74	73	76	79	80	82	82
1862.	81	81	88	86	87	79	84	90	95	97	102	107	90
1863.	108	134	144	141	127	116	119	115	118	129	133	147	128
1864.	157	158	156	163	172	183	195	209	222	199	212	228	188
1865.	228	231	214	176	168	163	168	176	177	180	175	162	185
1866.	171	171	172	169	175	186	183	181	183	183	185	170	178
1867.	169	179	177	188	188	172	158	156	169	171	161	165	171
1868.													
1869.													
1870.													
1871.													
1872.			131	134	139	128	122	116	119	117	116	122	124
1873.	125	126	125	126	127	123	125	116	122	118	114	126	123
1874.	131	134	135	137	142	131	127	124	130	128	128	132	132
1875.	132	137	140	142	142	131	130	134	126	124	128	121	132
1876.	120	121	123	124	114	103	101	100	101	103	106	112	111
1877.	121	112	108	113	119	117	102	99	100	100	97	95	107
1878.	92	91	87	87	92	84	82	83	83	79	76	74	84
1879.	83	84	85	86	89	94	88	84	86	92	96	102	89
1880.	103	102	104	101	103	98	93	94	99	97	101	109	100
1881.	111	108	107	112	108	106	111	115	125	127	124	127	115
1882.	129	131	130	134	135	137	134	124	122	120	116	113	127
1883.	117	122	120	122	117	113	101	99	98	101	99	104	109
1884.	110	121	114	109	111	108	102	100	98	95	91	91	104
1885.	94	100	98	99	103	96	92	92	91	88	88	90	94
1886.	82	94	91	90	87	87	87	86	87	86	85	89	88
1887.	94	94	96	96	99	96	90	92	91	91	94	100	94
1888.	103	105	104	103	106	102	100	96	96	96	94	93	100
1889.	89	89	87	85	91	89	83	82	83	83	83	82	85
1890.	83	85	86	87	97	90	90	95	97	97	98	99	92
1891.	99	100	105	112	107	104	98	92	95	91	89	88	98
1892.	90	90	88	87	89	91	91	92	91	92	97	102	92
1893.	112	109	103	100	101	97	89	86	89	91	88	89	92
1894.	86	86	84	88	84	84	85	85	87	82	81	81	84
1895.	82	86	85	89	94	94	85	81	77	76	74	75	83
1896.	74	73	73	72	68	67	64	63	64	67	69	68	68
1897.	69	70	69	72	76	72	71	73	78	77	76	77	73
1898.	77	79	77	78	85	76	74	73	73	72	73	74	76
1899.	77	80	81	81	81	82	79	77	79	81	82	85	80
1900.	89	91	93	94	93	93	93	88	92	88	86	89	91
1901.	91	92	93	93	99	97	96	98	101	97	100	107	97
1902.	111	113	111	114	111	108	110	102	103	100	96	100	107
1903.	103	103	104	102	101	101	99	96	98	96	97	101	100
1904.	103	107	106	105	103	101	102	101	101	99	99	97	102
1905.	98	102	99	100	98	98	102	102	100	101	103	105	101
1906.	106	104	108	110	109	109	108	103	104	106	108	108	107
1907.	109	113	112	112	116	115	111	116	119	120	110	110	114
1908.	110	111	112	115	115	116	119	114	114	109	109	110	113
1909.	118	124	125	132	136	137	131	130	127	128	132	135	130
1910.	141	137	143	140	137	134	133	130	132	127	125	126	134
1911.	128	119	118	118	117	122	131	126	127	128	130	131	125
1912.	134	134	138	146	146	136	135	133	131	129	127	125	134
1913.	126	128	131	135	131	133	132	134	138	137	130	137	133
1914.	140	138	138	136	141	137	137	138	137	129	130	130	136

TABLE 3. INDEX NUMBERS OF WHOLESALE PRICES OF FOODS AT CINCINNATI, 1844 TO 1914  
(1876-1891 = 100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1844	.....	.....	.....	.....	.....	.....	.....	.....	.....	74	76	73	74
1845	71	71	75	82	85	83	79	79	84	90	89	94	82
1846	92	82	83	82	82	74	70	69	71	76	.....	.....	78
1847	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1848	.....	.....	.....	.....	.....	.....	.....	.....	76	79	78	76	77
1849	76	75	73	69	72	74	80	82	77	77	78	79	76
1850	82	81	80	80	84	85	80	77	76	79	80	81	80
1851	81	80	81	83	86	84	82	86	80	90	84	86	84
1852	87	85	88	91	96	92	93	97	99	94	96	97	93
1853	96	89	88	86	88	88	88	90	100	102	99	95	92
1854	97	98	96	99	104	105	100	108	112	108	111	116	104
1855	110	110	118	129	127	124	118	114	117	120	124	117	119
1856	110	109	107	108	102	109	115	116	120	121	116	121	113
1857	123	124	128	131	140	141	139	134	128	119	103	95	125
1858	88	91	93	93	94	89	91	103	106	102	106	110	97
1859	111	117	118	114	118	117	115	104	103	103	102	100	111
1860	109	112	109	111	111	110	113	116	120	113	109	102	111
1861	102	99	98	94	92	89	85	86	87	80	80	90	92
1862	87	89	95	94	94	93	95	98	103	108	116	115	99
1863	115	125	131	130	125	117	120	121	125	134	137	147	127
1864	154	156	158	171	186	192	233	245	255	240	241	245	206
1865	246	247	225	196	194	182	195	211	217	234	231	213	216
1866	204	199	198	192	204	213	210	207	211	209	199	185	203
1867	184	180	173	182	184	176	175	172	188	195	186	184	182
1868	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1869	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1871	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1872	.....	.....	125	128	132	127	126	122	120	120	128	125	127
1873	126	125	127	128	131	131	133	130	133	126	119	126	128
1874	134	134	136	137	143	138	135	135	144	140	135	136	137
1875	131	135	134	138	139	129	133	138	139	143	133	130	135
1876	129	125	120	129	121	117	118	114	111	116	115	122	120
1877	130	119	115	122	128	127	110	106	110	115	116	103	117
1878	97	95	92	93	97	91	88	92	93	85	81	78	90
1879	83	82	84	85	85	95	87	82	87	95	100	102	89
1880	101	100	101	98	104	98	94	99	104	104	103	107	101
1881	108	106	105	112	106	106	116	122	133	135	129	128	117
1882	125	129	124	127	131	135	133	123	124	129	124	116	127
1883	115	119	117	117	115	114	100	97	98	100	97	102	108
1884	105	114	108	102	104	103	96	98	98	96	92	84	100
1885	88	93	90	91	91	85	83	81	83	81	82	84	86
1886	85	85	81	79	77	82	80	78	85	83	84	87	82
1887	91	91	96	96	99	96	99	93	95	95	95	99	95
1888	102	104	101	99	103	101	98	97	99	100	99	97	100
1889	92	90	90	86	92	91	83	83	84	87	85	84	87
1890	81	82	82	84	84	89	89	94	95	92	94	96	89
1891	94	93	96	99	97	96	90	86	91	90	86	86	92
1892	86	88	83	82	82	84	88	80	88	91	97	100	88
1893	100	113	106	100	104	103	95	92	96	99	94	90	100
1894	88	87	85	88	83	82	84	87	90	86	83	81	85
1895	82	83	80	83	87	89	80	76	74	74	75	76	80
1896	76	72	73	71	68	65	62	61	62	67	69	69	68
1897	68	68	68	70	73	71	68	70	76	77	78	78	72
1898	76	77	75	76	84	78	75	72	72	70	74	74	75
1899	75	78	76	76	74	76	78	72	76	77	77	79	76
1900	81	81	81	83	83	84	87	83	86	86	86	85	84
1901	86	86	87	88	84	92	91	95	97	94	96	100	92
1902	101	101	99	102	101	99	102	98	100	102	103	102	101
1903	101	98	99	97	96	92	91	90	92	90	91	92	94
1904	91	95	91	89	85	85	87	86	87	91	93	93	89
1905	93	94	89	88	85	84	87	93	93	94	97	94	91
1906	95	94	95	98	97	99	100	99	100	101	102	101	98
1907	100	104	100	99	103	101	99	104	107	109	107	105	103
1908	103	99	96	99	98	101	104	104	109	110	112	108	104
1909	110	112	113	117	119	113	122	122	121	122	125	126	119
1910	128	123	128	126	124	124	123	122	123	122	122	118	124
1911	115	109	107	104	101	106	113	110	114	115	117	116	111
1912	118	117	114	120	124	121	118	118	125	124	127	125	121
1913	120	120	120	122	122	124	122	123	126	124	127	125	123
1914	125	120	119	116	122	124	121	126	128	125	126	122	123

















TABLE 11. INDEX NUMBERS OF WHOLESALE PRICES OF LIVESTOCK\* AT CINCINNATI,  
1844 TO 1914  
(1876-1891 = 100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1844.										41	42	46	43
1845.	52	54	57	61	69	67	63	58	61	66	63	63	61
1846.	60	55	58	59	60	60	60	42	42	44			54
1847.													
1848.									53	54	56	63	54
1849.	60	60	61	58	56	56	54	53	52	50	48	51	55
1850.	61	68	61	63	66	63	59	63	59	59	60	67	62
1851.	71	71	77	78	78	77	76	75	71	77	75	78	75
1852.	83	81	85	89	95	92	85	85	86	91	92	103	89
1853.	103	102	105	104	101	98	92	87	89	87	79	79	94
1854.	85	86	94	97	95	92	83	82	87	81	74	87	87
1855.	86	94	104	107	113	109	101	103	111	117	98	105	104
1856.	96	101	101	102	102	100	102	108	110	104	97	107	102
1857.	118	119	129	136	142	134	125	130	128	98	93	86	120
1858.	86	79	104	101	97	85	91	84	86	88	102	112	94
1859.	109	125	131	117	120	111	109	97	102	95	91	107	109
1860.	104	119	116	100	109	103	105	105	109	101	102	97	107
1861.	102	106	96	89	77	72	68	64	62	67	65	65	78
1862.	66	70	81	74	76	69	71	75	74	73	77	70	74
1863.	80	107	122	117	108	95	95	90	93	90	96	120	101
1864.	136	147	154	160	167	163	171	179	205	202	191	225	175
1865.	244	274	268	231	188	166	198	225	225	226	178	162	215
1866.	186	185	189	177	185	192	198	202	197	180	157	124	181
1867.	127	153	162	174	167	153	147	145	149	132	118	131	146
1868.													
1869.													
1870.													
1871.													
1872.			107	107	105	96	100	104	105	100	95	94	101
1873.	96	104	110	118	114	107	107	105	101	91	88	103	104
1874.	110	120	120	126	125	116	124	130	127	116	125	129	122
1875.	133	139	150	156	149	136	138	137	134	130	152	133	141
1876.	137	150	153	148	133	115	120	114	111	104	105	108	125
1877.	119	115	110	108	109	102	105	104	105	99	90	87	104
1878.	86	83	81	77	80	80	80	84	79	71	65	66	79
1879.	76	88	86	84	80	79	80	76	75	70	77	88	81
1880.	93	90	94	93	87	86	89	96	100	93	92	96	92
1881.	105	115	115	114	118	112	119	116	118	122	114	114	115
1882.	123	130	130	138	143	144	150	147	146	135	124	119	136
1883.	126	134	140	147	136	124	111	108	102	99	97	109	119
1884.	116	132	130	118	114	111	113	116	109	101	94	92	112
1885.	97	104	102	99	95	91	95	99	91	80	79	84	93
1886.	88	90	90	95	94	89	97	93	91	85	79	84	90
1887.	92	105	107	102	95	93	95	91	90	85	87	95	95
1888.	98	99	101	104	102	100	111	114	111	102	98	96	103
1889.	94	91	90	93	89	85	84	85	83	82	77	75	86
1890.	82	84	88	88	87	76	75	72	84	80	73	73	80
1891.	76	84	94	104	101	95	101	94	98	85	79	81	91
1892.	89	88	91	90	80	94	93	100	95	98	99	111	94
1893.	128	129	122	122	124	110	101	95	99	102	95	94	110
1894.	93	91	85	93	94	89	96	94	98	87	82	84	90
1895.	84	84	95	103	97	93	99	96	89	81	75	73	89
1896.	80	85	83	70	75	75	74	71	70	69	71	71	75
1897.	75	77	77	83	80	75	79	82	88	83	74	77	79
1898.	82	87	85	84	89	83	83	80	84	83	79	77	83
1899.	82	87	88	88	88	90	91	95	91	93	87	87	89
1900.	96	102	102	108	103	103	105	102	104	92	87	88	99
1901.	99	100	107	110	106	108	106	103	113	101	97	105	105
1902.	115	120	125	136	133	132	140	133	134	123	110	113	128
1903.	118	123	128	129	118	112	102	104	107	100	90	89	110
1904.	96	103	107	103	99	102	104	103	104	97	93	92	100
1905.	99	105	106	113	110	107	115	114	107	104	98	101	107
1906.	105	115	123	122	121	121	127	119	119	119	117	120	119
1907.	125	128	129	129	125	122	119	122	124	125	101	97	120
1908.	95	98	106	122	118	117	125	117	118	104	101	103	110
1909.	120	128	134	138	140	142	141	139	142	133	140	145	137
1910.	140	158	184	170	170	158	153	145	154	144	128	130	154
1911.	145	136	132	126	119	122	128	136	134	122	118	120	128
1912.	125	125	141	148	151	143	147	150	154	153	144	143	144
1913.	148	157	171	174	165	168	174	165	165	159	163	164	163
1914.	162	170	168	168	168	161	167	167	167	150	147	143	161

\* Livestock: cattle, hogs, sheep, lambs, and old hens. The weights are in the same proportion as those given in the farm-products group (table 2, page 15).

TABLE 12. INDEX NUMBERS OF WHOLESALE PRICES OF MEATS AND MEAT PRODUCTS\*  
AT CINCINNATI, 1844 TO 1914  
(1876-1891 = 100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1844...										68	67	67	67
1845...	68	69	76	87	90	86	86	90	97	98	93	91	86
1846...	84	86	75	73	72	69	64	65	63	63			71
1847...													
1848...									79	75	74	75	78
1849...	77	76	73	68	70	75	77	81	73	69	67	68	73
1850...	73	71	71	69	74	80	78	76	77	78	80	82	76
1851...	86	91	93	101	108	104	100	108	118	103	94	92	100
1852...	94	100	107	114	118	119	126	130	130	116	114	120	116
1853...	118	110	108	103	111	110	107	109	115	117	108	100	110
1854...	99	103	90	100	100	97	96	101	109	102	97	94	100
1855...	92	95	103	112	120	123	129	131	143	145	144	122	122
1856...	112	111	109	111	113	122	138	138	137	134	122	121	122
1857...	128	134	149	150	157	163	163	169	177	167	132	118	151
1858...	102	112	115	118	118	114	112	124	121	115	118	124	116
1859...	125	132	127	111	126	123	122	123	122	119	113	121	122
1860...	121	130	127	127	129	134	145	153	151	132	126	112	132
1861...	116	121	121	118	112	106	99	98	92	90	82	75	102
1862...	68	72	81	78	81	83	83	88	93	93	90	93	83
1863...	94	102	105	101	104	100	95	102	104	110	115	127	105
1864...	137	150	156	172	190	198	247	272	291	266	262	262	217
1865...	268	262	247	210	204	201	228	256	266	297	275	239	246
1866...	229	225	213	206	236	241	254	257	248	233	198	169	226
1867...	161	158	157	161	159	159	178	186	200	197	181	182	173
1868...													
1869...													
1870...													
1871...			95	99	104	102	111	113	121	121	120	99	108
1872...			100	109	118	118	114	118	114	104	91	101	108
1873...	97	100	109	118	118	123	126	140	151	171	160	150	135
1874...	110	110	110	118	123	126	140	151	171	160	150	150	152
1875...	143	142	146	158	159	144	147	155	154	163	158	150	152
1876...	144	150	156	155	143	134	137	130	127	125	123	120	137
1877...	127	119	108	111	109	102	105	101	102	109	107	94	108
1878...	88	84	81	82	78	83	85	92	86	78	68	64	81
1879...	66	76	77	74	74	78	73	71	73	83	89	92	77
1880...	92	88	88	84	85	87	93	106	109	108	98	97	95
1881...	100	108	110	116	115	115	125	129	141	140	133	127	122
1882...	127	130	126	132	140	147	156	157	161	170	158	133	145
1883...	126	132	133	133	129	124	111	105	100	98	98	107	116
1884...	108	120	120	112	111	108	106	116	116	115	103	88	110
1885...	89	92	90	87	83	79	80	81	78	75	74	76	82
1886...	78	78	76	75	73	78	84	84	89	80	81	83	80
1887...	85	94	105	102	95	93	98	100	106	96	93	101	97
1888...	100	101	99	99	102	103	103	110	114	111	106	102	104
1889...	97	90	91	89	89	87	85	83	81	83	80	77	86
1890...	75	76	77	82	83	80	79	81	81	80	77	75	79
1891...	74	72	77	85	84	81	84	87	93	88	80	78	82
1892...	80	84	81	79	81	86	96	100	92	99	104	111	91
1893...	131	143	135	123	133	125	118	113	102	121	110	97	121
1894...	97	91	85	92	89	89	92	97	105	93	87	79	91
1895...	82	77	80	88	85	83	81	81	76	75	73	70	80
1896...	74	75	72	68	65	61	58	56	56	62	61	59	64
1897...	60	60	64	65	62	61	62	65	71	69	69	68	71
1898...	67	70	69	70	80	75	73	71	69	69	69	72	70
1899...	69	70	68	69	67	68	73	73	72	73	71	72	70
1900...	79	82	82	93	90	87	90	92	94	94	92	80	89
1901...	96	96	100	103	103	105	108	108	113	110	104	111	105
1902...	113	111	110	120	125	127	133	129	130	134	134	125	124
1903...	121	121	126	120	121	114	103	104	108	108	97	93	112
1904...	95	100	98	92	87	92	96	95	94	100	95	91	95
1905...	90	90	91	91	92	95	97	104	106	104	99	97	96
1906...	99	103	106	115	114	118	123	119	118	120	121	115	114
1907...	118	125	123	119	121	118	119	119	119	119	110	105	118
1908...	101	94	95	102	103	105	117	118	122	123	118	114	109
1909...	116	119	124	125	130	140	144	145	153	156	156	158	139
1910...	155	157	175	175	173	171	171	164	164	160	149	139	163
1911...	141	139	131	122	118	110	121	128	132	129	122	122	127
1912...	122	120	121	131	140	141	137	139	150	153	150	146	137
1913...	141	142	145	147	147	148	153	154	152	147	146	145	147
1914...	145	143	142	142	141	141	144	155	157	154	146	138	146

\* Meats and meat products: sugar-cured ham, sugar-cured bacon, dry salted meats, mess pork, lard, and tallow. The weights are in the same proportion as those given in the foods group (table 3, page 16).

TABLE 13. INDEX NUMBERS OF WHOLESALE PRICES OF GRAINS\* AT CINCINNATI,  
1844 TO 1914  
(1876-1891 = 100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1844													
1845	74	75	75	76	79	87	72	65	65	66	72	73	70
1846	79	75	72	71	71	55	52	52	58	69	75	84	75
1847										65			65
1848									75	74	73	73	74
1849	72	70	71	68	72	76	83	89	87	75	74	78	76
1850													
1851	86	89	92	95	100	110	90	90	87	85	78	82	90
1852	84	83	78	77	78	74	71	67	66	67	85	63	73
1853	82	83	62	63	64	66	68	70	74	75	77	82	69
1854	84	82	81	82	87	93	97	97	100	103	101	95	92
1855	103	118	112	120	137	128	102	119	135	134	134	136	123
1856	140	145	150	168	178	167	130	132	112	129	139	128	143
1857	116	116	108	95	93	93	101	109	121	122	113	115	108
1857	119	120	121	126	165	153	142	137	103	92	85	77	120
1858	78	78	75	75	78	89	91	106	116	104	109	120	93
1859	134	142	145	139	160	154	131	125	116	127	106	115	133
1860													
1861	122	123	123	120	124	112	103	101	109	103	92	94	110
1861	91	89	89	85	90	92	71	72	73	82	82	81	82
1862	81	84	88	87	92	83	84	87	90	105	115	112	93
1863	116	146	148	146	139	128	125	118	127	156	163	182	141
1864	192	177	166	183	201	197	215	228	237	214	228	237	206
1865	227	218	201	167	158	152	161	173	166	174	169	148	176
1866	160	164	159	174	187	193	181	180	201	224	228	221	180
1867	211	215	218	247	264	215	204	193	218	241	223	223	223
1868													
1869													
1870													
1871													
1872			133	138	156	133	123	117	124	123	121	123	129
1873	131	131	129	129	140	123	120	116	126	123	117	134	127
1874	143	141	142	144	148	135	129	121	138	135	127	133	136
1875	132	131	131	141	151	140	142	150	131	131	125	117	136
1876	115	112	111	118	113	101	100	102	102	109	112	115	109
1877	120	120	119	139	146	138	114	106	108	108	106	100	110
1878	99	97	96	99	99	92	88	91	90	85	81	82	92
1879	83	86	91	93	90	97	96	89	93	112	111	116	97
1880													
1881	114	110	111	105	105	100	96	94	98	98	105	103	103
1882	102	102	106	110	111	111	114	125	142	143	134	134	119
1882	138	132	135	145	145	141	134	128	115	118	106	99	128
1883	104	112	109	108	107	107	104	102	100	101	100	101	105
1884	101	106	105	106	109	101	100	96	92	92	82	78	97
1885	86	91	91	100	108	100	99	95	91	94	93	85	94
1886	86	87	86	85	84	77	80	81	79	78	78	78	81
1887	81	81	81	83	86	83	82	83	82	82	86	98	84
1888	97	95	97	99	104	98	91	88	91	98	91	88	95
1889	85	83	81	78	78	77	81	75	74	73	75	71	78
1890													
1891	72	71	71	70	87	82	87	102	101	105	106	105	89
1891	105	109	111	130	123	113	106	108	109	105	101	102	110
1892	92	91	91	89	94	95	89	89	86	83	81	80	88
1893	83	82	80	76	83	74	74	73	75	75	74	71	77
1894	69	70	71	75	73	77	78	79	82	77	74	73	75
1895	73	73	75	79	88	94	79	74	66	66	64	62	74
1896	63	68	68	70	66	61	56	57	56	67	70	70	64
1897	70	69	71	71	73	67	67	71	79	74	75	75	72
1898	77	81	82	86	103	80	73	69	66	65	71	72	77
1899	74	76	76	78	77	78	76	71	71	73	72	72	74
1900													
1900	73	74	78	82	80	85	84	80	82	81	77	78	79
1901	82	82	84	85	87	85	88	98	96	87	102	112	91
1902	113	112	107	107	109	106	109	91	94	95	86	90	102
1903	89	91	90	86	88	96	93	94	96	94	92	94	92
1904	99	105	103	107	112	107	106	108	111	115	114	108	108
1905	107	107	109	104	103	106	101	94	97	98	95	95	101
1906	84	91	91	96	99	92	95	89	88	90	89	80	92
1907	97	92	94	94	105	108	108	107	117	124	112	112	105
1908	116	112	121	119	126	120	127	126	131	128	120	118	122
1909	120	129	133	143	153	154	139	120	122	122	122	125	132
1910													
1910	141	136	131	129	129	126	126	120	115	109	109	108	123
1911	108	104	104	107	112	110	120	110	124	132	130	125	116
1912	127	129	137	148	152	142	141	133	131	126	116	112	133
1913	117	116	115	123	125	122	118	127	131	128	127	125	123
1914	123	122	124	125	128	126	120	143	143	138	138	140	131

\* Grains: corn, wheat, oats, rye, barley, and rice. The weights are in the same proportions as those given in the farm-products group (table 2, page 15).



TABLE 14. INDEX NUMBERS OF WHOLESALE PRICES OF FRUITS AND VEGETABLES AT CINCINNATI, 1844 TO 1914  
(1876-1891 = 100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1844.....										51	59	58	56
1845.....	53	59	64	75	82	92	84	56	57	73	75	101	73
1846.....	107	86	104	105	107	85	72	58	48	50			82
1847.....													
1848.....									45	53	61	52	50
1849.....	55	56	55	52	62	67	60	51	53	54	69	67	58
1850.....	75	77	82	82	86	83	82	77	68	67	61	65	75
1851.....	68	67	75	69	70	72	75	75	76	84	70	85	74
1852.....	87	88	86	95	109	92	82	82	76	70	71	70	84
1853.....	72	67	62	65	74	71	70	73	73	68	63	61	69
1854.....	65	75	73	75	80	94	91	92	91	95	110	122	89
1855.....	125	126	154	173	138	134	92	81	74	71	71	70	110
1856.....	68	68	83	77	75	101	89	83	112	106	105	123	91
1857.....	130	130	133	156	168	163	168	115	93	78	68	67	122
1858.....	63	65	68	65	61	60	68	88	102	101	109	111	80
1859.....	124	123	130	120	133	140	155	94	87	84	76	85	113
1860.....	96	98	63	96	99	96	93	89	84	81	70	70	86
1861.....	68	61	59	57	54	61	62	64	66	67	77	89	65
1862.....	89	89	101	93	106	102	115	116	112	103	98	103	102
1863.....	101	106	119	127	112	107	135	133	129	126	128	134	121
1864.....	147	146	149	148	178	201	226	225	216	209	188	191	185
1865.....	195	237	227	183	208	197	187	177	170	163	176	180	190
1866.....	159	164	174	177	171	228	202	176	148	133	129	132	166
1867.....	158	142	136	162	163	201	143	119	143	150	144	149	151
1868.....													
1869.....													
1870.....													
1871.....													
1872.....			130	131	135	132	119	90	95	95	95	104	113
1873.....	104	105	109	106	129	154	163	129	127	132	128	132	126
1874.....	152	161	168	169	205	179	135	114	109	112	104	114	143
1875.....	113	116	125	122	128	126	124	108	115	113	102	97	116
1876.....	108	100	110	113	111	107	97	88	70	81	82	105	98
1877.....	116	106	103	125	158	165	93	95	93	93	97	92	111
1878.....	88	92	83	94	140	93	73	69	75	67	68	66	84
1879.....	74	76	78	91	96	128	89	71	71	74	77	83	84
1880.....	91	93	100	104	136	112	80	72	75	71	79	95	92
1881.....	94	98	102	114	108	101	122	118	130	137	137	132	116
1882.....	137	143	141	142	175	184	144	96	93	101	103	112	131
1883.....	121	122	123	120	130	141	94	84	80	96	84	91	108
1884.....	95	101	100	106	136	132	106	90	87	75	75	74	98
1885.....	78	92	95	99	127	107	80	71	76	68	70	71	86
1886.....	77	79	77	71	77	103	77	67	74	73	80	86	78
1887.....	90	90	95	115	150	137	98	98	96	105	108	106	107
1888.....	123	134	138	128	146	138	113	89	80	74	73	69	109
1889.....	64	68	69	60	111	112	68	66	68	76	72	72	75
1890.....	73	83	84	90	138	120	120	121	115	109	121	134	110
1891.....	131	129	139	145	133	149	114	75	74	71	65	66	108
1892.....	70	71	71	75	79	89	99	87	92	94	101	102	86
1893.....	105	110	110	97	103	122	99	93	94	85	84	89	99
1894.....	98	98	110	121	117	120	103	91	89	87	80	85	100
1895.....	88	103	106	106	133	125	79	66	58	55	60	62	87
1896.....	63	53	63	66	61	62	51	45	48	52	51	51	55
1897.....	55	60	61	84	96	89	76	71	74	84	83	92	77
1898.....	85	89	84	88	100	91	83	69	72	63	67	72	80
1899.....	77	83	96	90	103	107	78	66	78	68	68	74	83
1900.....	81	85	87	89	92	98	87	75	80	77	76	84	84
1901.....	81	87	92	98	129	123	111	115	114	101	115	119	107
1902.....	116	115	122	133	111	99	91	79	77	78	79	81	98
1903.....	90	86	79	72	84	80	97	81	84	80	85	93	84
1904.....	85	97	96	92	93	96	101	88	78	74	77	83	88
1905.....	75	74	81	79	76	75	85	86	84	92	101	94	83
1906.....	98	91	96	108	107	119	105	94	92	88	81	78	96
1907.....	83	87	93	92	115	109	92	110	106	102	103	103	100
1908.....	104	107	105	108	109	139	126	118	114	109	106	103	112
1909.....	110	122	125	134	143	146	120	154	96	94	88	86	118
1910.....	99	99	94	94	110	135	106	100	105	107	122	118	107
1911.....	111	112	128	140	128	161	140	112	122	121	124	121	127
1912.....	135	151	156	139	126	127	111	108	100	93	92	88	119
1913.....	86	92	102	117	129	133	122	119	124	122	127	128	117
1914.....	133	132	134	131	157	144	130	113	92	81	83	86	118



WHOLESALE PRICES AT CINCINNATI AND NEW YORK

TABLE 16. INDEX NUMBERS OF WHOLESALE PRICES OF FURS AT CINCINNATI, 1844 TO 1850  
1872 TO 1913  
(1876-1891 = 100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1844....										44	44	45	44
1845....	46	46	51	57	59	54	54	54	54	54	54	54	53
1846....	57	62	52	54	54	54	54	54	44	44			53
1847....													
1848....									33	33	33	33	33
1849....	33	33	33	33	33	33	33	33	33	33	33	33	33
1850....	33	43	43	43	43	43							41
1872....												177	177
1873....	179	184	185	173									180
1874....													
1875....													
1876....													
1877....	160	158	131									95	137
1878....	88	94	95	93	93	93					87	97	92
1879....	100	98	98	94									97
1880....	103	121	121	121	122	122						113	118
1881....	113	107	107	105								76	102
1882....	86	94	94	94								84	90
1883....	81	81	81	81								98	84
1884....	98	98	98	101								90	97
1885....	90	90	90	59								60	78
1886....	92	92	92	92								105	95
1887....	105	101	101	101								93	100
1888....	93	93	93	93								93	93
1889....	98	90	133	133							102	111	112
1890....	110	95	92	92							100	100	98
1891....	109	114	107	93								119	108
1892....	102	103	105	105							114	114	107
1893....	114	160	153	153							165	154	150
1894....	139	110	107	95								134	117
1895....	134	121	121	121								88	117
1896....	88	115	108	108	108							105	105
1897....	107	99	99	99								102	101
1898....	102	102	108	110								106	106
1899....	106	106	141	129								147	126
1900....	147	164	181									133	156
1901....	117	133	128									141	130
1902....	120	120	129									188	144
1903....	187	212	199								198	198	199
1904....	198	173	168									183	180
1905....	188	190	190	190								246	201
1906....	246	246	246	246								231	243
1907....	231	231	231	231								227	230
1908....	213	213	213	213	213								213
1909....	310	310										310	310
1910....	310	310	411	491	491							374	374
1911....	374	344	344	330	329	325						315	334
1912....	315	315											315
1913....	477	477	477	477	477	477							477

INDIVIDUAL COMMODITIES COMPARED WITH ALL COMMODITIES AT CINCINNATI

For the purpose of comparison, index numbers of wholesale prices of five individual commodities were compared with the all-commodity index with variable group weights. The prices of a single commodity

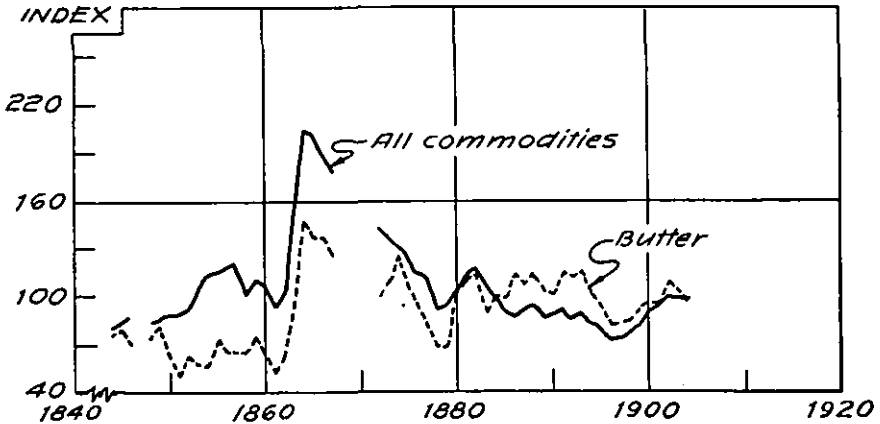


FIGURE 15. INDEX NUMBERS OF WHOLESALE PRICES OF BUTTER AND ALL COMMODITIES AT CINCINNATI, 1844 TO 1904

(1876-1891 = 100)

Butter prices fluctuated more than did the general level of all commodities

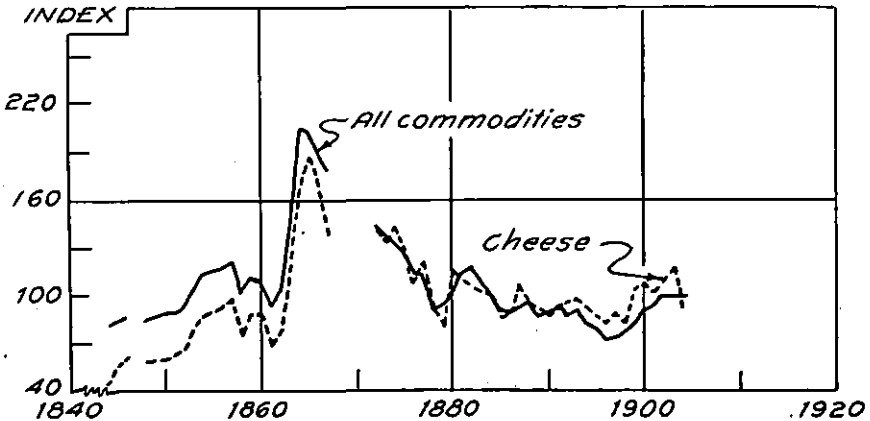


FIGURE 16. INDEX NUMBERS OF WHOLESALE PRICES OF CHEESE AND ALL COMMODITIES AT CINCINNATI, 1844 TO 1904

(1876-1891 = 100)

Except for the period before 1860, cheese prices followed the general level of all prices

were usually found to be more flexible than an average which was made up of about one hundred commodities.

Prices of cheese (figure 16) followed more closely the all-commodity index than did prices of butter (figure 15).

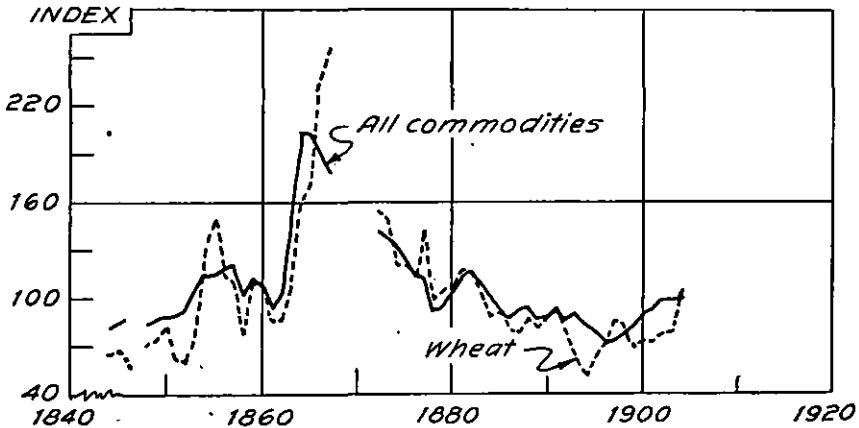


FIGURE 17. INDEX NUMBERS OF WHOLESALE PRICES OF WINTER WHEAT AND ALL COMMODITIES AT CINCINNATI, 1844 TO 1904

(1876-1891 = 100)

Wheat prices followed the all-commodity index

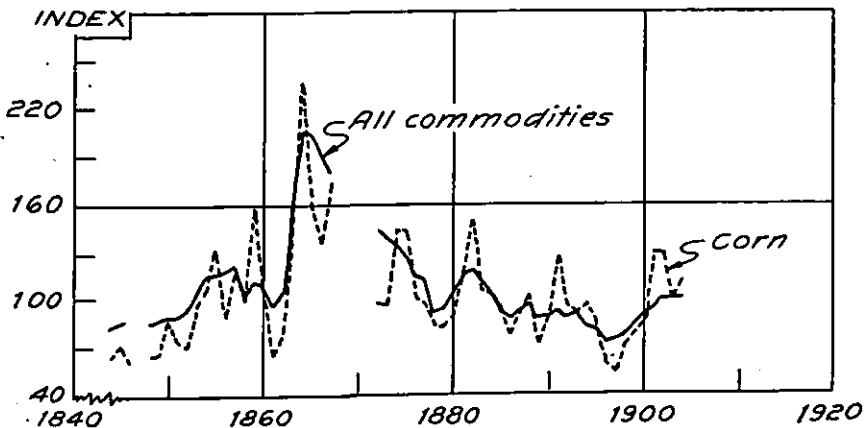


FIGURE 18. INDEX NUMBERS OF WHOLESALE PRICES OF CORN AND ALL COMMODITIES AT CINCINNATI, 1844 TO 1904

(1876-1891 = 100)

Corn prices followed the all-commodity index

The wholesale prices of winter wheat fluctuated around those for all commodities (figure 17). - Corn prices behaved similarly over the entire period, although the amplitudes of the fluctuations were greater (figure 18). Wheat was used chiefly for human food and readily entered into

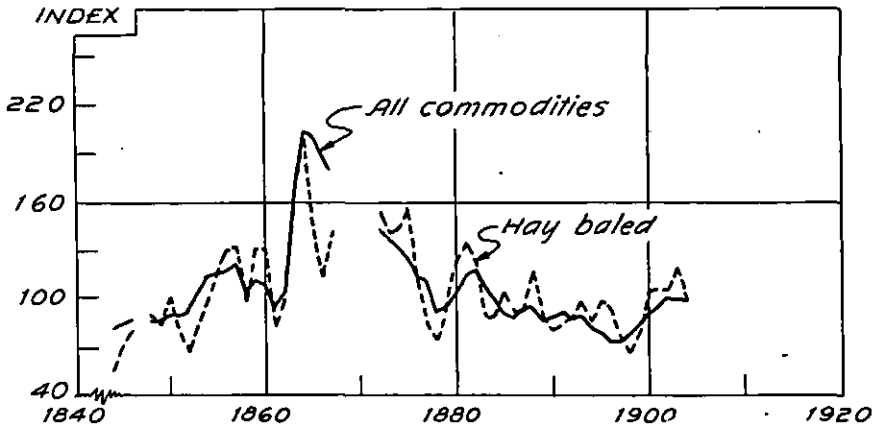


FIGURE 19. INDEX NUMBERS OF WHOLESALE PRICES OF BALED HAY AND ALL COMMODITIES AT CINCINNATI, 1844 TO 1904  
(1876-1891 = 100)

For the 61-year period, the prices of baled hay followed the index of all commodities

international trade. Corn was used primarily for animal feeding and to a limited extent only as human food, and comparatively little entered into international trade. This may account in part for the difference in the behavior of corn. Prices of baled hay followed the general level of all prices (figure 19).

#### PRICES IN GOLD AND CURRENCY, 1862 TO 1878

The currency value of gold was reported frequently at Cincinnati for 1846, 1850 to 1853, and 1855 to 1857, and was reported regularly from 1858 to 1867 and from 1872 to 1879 (table 17). The monthly average was based on every quotation reported in the *Price Current* for that month. The currency prices of gold before 1862 probably represented the cost of transportation of gold, and not a premium. The United States did not abandon the gold standard until 1862. The last quotation of gold at Cincinnati was reported in the first issue of the *Price Current* in January 1879. The gold value of currency at Cincinnati is given in table 18.

TABLE 17. CURRENCY VALUE OF GOLD AT CINCINNATI, 1846, 1850 TO 1867, AND 1872 TO 1879  
(In cents)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1846....		101.4	101.5			101.2							
1850....				101.2	100.9		100.4				100.7	100.5	
1851....	100.5	100.6	100.5	100.5	100.6	100.5	100.6	100.4	100.5	100.8	100.7		
1852....					100.6					100.4			
1853....		100.6											
1854....													
1855....						100.7				100.7		100.2	
1856....	100.5	100.4			100.6	100.5				100.7	100.7		
1857....		100.9	100.9	100.9					101.9	106.0	102.8	101.3	
1858....	100.9	100.7	100.7	100.4	100.5	100.5	100.4	100.4	100.2	100.2	100.2	100.3	100.4
1859....	100.5	100.3	100.4	100.3	100.4	100.5	100.5	100.4	100.4	100.4	100.3	100.3	100.4
1860....	100.5	100.4	100.4	100.4	100.4	100.3	100.3	100.3	100.3	100.3	100.4	101.2	100.4
1861....	100.6	100.4	100.3	101.7	101.9	100.3	100.4	100.4	100.3	100.3	100.3	100.3	100.6
1862....	101.9	102.7	101.5	101.6	102.8	105.2	114.6	114.5	118.7	126.4	130.4	131.8	112.7
1863....	141.7	158.3	157.5	148.5	144.1	142.4	132.4	125.8	133.1	148.6	147.3	150.6	144.2
1864....	155.4	158.6	162.6	172.1	176.8	203.1	264.6	252.2	218.4	205.7	236.5	225.0	202.7
1865....	215.6	206.0	177.4	146.8	135.4	135.9	141.0	140.6	143.7	144.8	146.7	145.8	156.6
1866....	140.2	136.2	129.4	126.4	130.9	147.6	150.4	148.3	145.2	147.5	143.9	136.7	140.2
1867....	134.1	137.3	134.7	135.2	137.8	136.5	139.4	140.6	142.9	143.4	139.5	134.9	138.0
1868....													
1869....													
1870....													
1871....													
1872....			110.1	111.0	113.5	113.7	114.1	114.4	113.6	113.7	112.7	112.3	
1873....	112.7	114.1	115.5	117.7	117.6	116.5	115.5	115.2	112.9	109.4	108.3	109.8	113.8
1874....	111.2	112.1	112.0	113.2	112.4	111.2	109.9	109.7	109.7	110.0	110.8	111.5	111.1
1875....	112.4	114.4	115.6	115.1	115.7	116.8	114.6	113.5	115.5	116.6	114.6	113.0	114.0
1876....	112.7	113.3	114.2	112.8	112.5	112.4	112.5	111.0	109.8	109.9	109.4	107.6	111.5
1877....	106.4	105.3	104.8	106.7	106.8	105.2	105.4	104.9	103.2	102.7	102.7	102.7	104.7
1878....	102.1	101.9	101.1	100.6	100.5	100.7	100.5	100.3	100.3	100.4	100.1	100.2	100.7
1879....	100.1												

DETAILS OF CONSTRUCTION OF INDEX NUMBERS

METHODS OF WEIGHTING

In preparing the index numbers of wholesale prices at Cincinnati, 85 price series were used in 1844, 95 series in 1884, and 73 series in 1904 (table 19). The commodities were classified into eight groups, corresponding, in general, to those used by the Federal Bureau of Labor Statistics except that no indexes were made for house-furnishing goods and for drugs and chemicals. Whiskey was included in miscellaneous products. It was an important commodity in the earlier years. The course of whiskey prices was different from that of other commodities, owing to taxes which were levied during the Civil War and continued thereafter.

The percentage of the final group index represented by each commodity is given in table 20. For example, dressed hogs had a weight of 19.4 in the farm-products index, but the price was so low that it represented but 14.4 per cent of the final index.

TABLE 18. GOLD VALUE OF CURRENCY AT CINCINNATI, 1846, 1850 TO 1867, AND 1872 TO 1879\*  
(In cents)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1846....		98.6	98.5			98.8							
1850....				98.8	99.1		99.6				99.3	99.5	
1851....	99.5	99.4	99.5	99.5	99.4	99.5	99.4	99.6	99.5	99.2	99.3		
1852....					99.4					99.6			
1853....		99.4											
1854....						99.4							
1855....							99.4			99.3		99.8	
1856....	99.5	99.6			99.4	99.5				99.3	99.3		
1857....		99.1	99.1	99.1					98.1	94.3	97.3	98.7	
1858....	99.1	99.3	99.3	99.6	99.5	99.5	99.6	99.6	99.8	99.8	99.8	99.7	99.6
1859....	99.5	99.7	99.6	99.7	99.6	99.5	99.5	99.6	99.6	99.7	99.7	99.7	99.6
1860....	99.5	99.6	99.6	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.6	98.8	99.6
1861....	99.4	99.6	99.7	98.3	98.1	99.7	99.6	99.6	99.7	99.7	99.7	99.7	99.4
1862....	98.1	97.4	98.5	98.4	97.3	95.1	87.3	87.3	84.2	79.1	76.7	75.9	88.7
1863....	70.6	63.2	63.5	67.3	69.4	70.2	75.5	79.5	75.1	67.3	67.9	66.4	69.3
1864....	64.3	63.1	61.5	58.1	56.6	49.2	37.8	39.7	45.8	48.6	42.3	44.3	49.3
1865....	46.4	48.5	56.4	68.1	73.9	73.6	70.9	71.1	69.6	69.1	68.2	68.6	63.9
1866....	71.3	73.4	77.3	79.1	76.4	67.8	66.5	67.4	68.9	67.8	69.5	73.2	71.3
1867....	74.6	72.8	74.2	74.0	72.6	73.3	71.7	71.1	70.0	69.7	71.7	74.1	72.5
1868....													
1869....													
1870....													
1871....													
1872....			90.8	90.1	88.1	88.0	87.6	87.4	88.0	88.0	88.7	89.0	
1873....	88.7	87.6	86.6	85.0	85.0	85.8	86.6	86.8	88.6	91.4	92.3	91.1	87.9
1874....	89.9	89.2	89.3	88.3	89.0	89.9	91.0	91.2	91.2	90.9	90.3	89.7	90.0
1875....	89.0	87.4	86.6	86.9	86.4	85.6	87.3	88.1	86.6	85.8	87.3	87.8	87.0
1876....	88.7	88.3	87.6	88.7	88.9	89.0	88.9	90.1	91.1	91.0	91.4	92.9	89.7
1877....	94.0	95.0	95.4	93.7	93.6	95.1	94.9	95.3	96.9	97.4	97.4	97.4	95.5
1878....	97.9	98.1	98.9	99.4	99.5	99.3	99.5	99.7	99.7	99.6	99.9	99.8	99.3
1879....	99.9												

\* Calculated from table 17.

TABLE 19. NUMBERS OF PRICE SERIES USED IN EACH GROUP

Group	1844	1854	1864	1874	1884	1894	1904	1914
Farm products.....	22	23	23	28	29	29	24	23
Foods.....	34	35	34	36	36	36	24	22
Hides and leather.....	3	3	3	3	3	3	3	
Textiles.....	7	4	4	7	7	7	6	
Fuel and lighting.....	2	2	3	4	4	4	3	
Metals and metal products.....	7	7	7	8	8	7	8	
Building materials.....	9	9	9	9	9	9	8	
Miscellaneous products.....	8	8	8	8	8	8	5	5
Total number of products, including duplicates, in all-commodity index.....	92	91	91	103	104	103	81	50
Total excluding duplicates.....	85	83	83	94	95	94	73	43
Other groups								
Livestock.....	3	3	3	4	5	5	5	5
Meats and meat products.....	6	6	6	6	6	6	6	6
Grains.....	6	6	6	8	8	8	7	7
Fruits and vegetables.....	10	10	10	10	10	10	7	6
Cotton goods.....	5	2	2	5	5	5	4	
Furs.....	2				4	4	4	



TABLE 20. PERCENTAGE THAT EACH PRODUCT CONTRIBUTED TO THE GROUP INDEX FOR OCTOBER OF EACH YEAR

	1844	1854	1864	1874	1884	1894	1904	1914
<b>Farm products:</b>								
Barley.....	1.3	1.6	1.2	1.5	1.0	0.9	.....	.....
Corn.....	8.2	10.6	9.5	5.1	4.7	5.4	.....	.....
shelled mixed.....	.....	.....	.....	5.4	4.8	5.4	.....	.....
No. 3 yellow.....	.....	.....	.....	.....	.....	.....	9.7	9.8
Oats.....	3.6	3.6	3.1	1.2	1.0	1.1	1.4	1.6
white.....	.....	.....	.....	1.2	0.9	1.1	1.4	1.6
Rye.....	1.6	2.2	1.4	1.1	0.9	0.9	1.3	1.0
Wheat, winter.....	13.1	14.9	9.9	8.7	9.0	6.6	13.1	9.2
Rice.....	2.7	2.2	2.6	1.0	1.0	1.2	1.0	2.6
Beans.....	1.7	0.9	1.0	1.8	1.7	1.9	2.0	.....
Potatoes.....	2.7	5.3	4.1	4.1	3.6	6.2	3.0	3.6
Onions.....	.....	.....	.....	1.0	0.6	0.6	0.8	0.5
Butter.....	6.8	3.2	4.2	5.5	6.0	6.0	4.7	5.5
Beef, dressed.....	6.4	8.5	.....	.....	.....	.....	.....	.....
cattle.....	.....	.....	6.7	7.4	11.1	8.8	8.8	12.2
Hogs.....	.....	14.9	22.4	17.8	17.7	20.6	17.6	19.7
dressed.....	14.4	.....	.....	.....	.....	.....	.....	.....
Sheep.....	0.9	1.4	1.5	1.6	1.0	0.7	0.6	0.7
Lambs.....	.....	.....	.....	.....	0.8	0.7	0.9	1.0
Old hens.....	.....	.....	.....	1.5	2.2	2.2	2.5	2.7
Eggs.....	4.0	3.8	3.0	5.0	5.9	5.4	6.1	6.3
Hops.....	0.7	1.7	0.8	1.3	1.0	0.5	.....	.....
Hay, baled.....	1.8	2.2	1.8	2.7	1.8	1.8	3.8	4.3
Timothy seed.....	1.4	1.2	1.4	1.2	0.8	1.6	0.7	0.9
Clover seed.....	1.4	1.3	1.0	0.9	1.0	1.2	2.3	2.3
Flaxseed.....	1.4	1.2	1.0	1.1	1.2	1.4	.....	.....
Hemp.....	3.6	5.1	4.1	3.2	3.1	3.9	.....	.....
Cotton.....	10.8	7.2	9.6	9.7	8.7	6.1	8.7	5.9
Apples.....	2.2	1.2	2.6	2.7	2.4	3.0	2.2	1.9
Broom corn.....	.....	.....	.....	0.9	1.3	1.3	3.5	3.8
Peanuts.....	.....	1.9	2.6	1.2	0.9	1.1	.....	.....
Wool.....	0.3	3.0	4.5	4.4	3.9	2.4	3.9	2.9
<b>Total.....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Foods:</b>								
Beans.....	1.3	0.8	0.8	1.6	1.7	1.8	2.2	.....
Butter.....	6.0	3.5	4.1	5.1	5.9	5.7	7.1	7.9
Cheese.....	2.9	4.3	4.0	4.2	4.3	4.6	4.4	5.3
Coffee.....	2.1	2.3	3.5	2.9	2.4	4.0	2.2	2.5
Eggs.....	2.9	3.4	2.5	4.7	5.9	5.2	6.6	6.4
Codfish.....	0.9	0.9	0.8	0.9	0.9	1.4	.....	.....
Herring.....	4.1	2.4	1.1	1.2	0.8	0.9	.....	.....
Mackerel.....	0.8	0.9	0.5	0.6	1.0	1.4	.....	.....
Flour, wheat.....	14.5	20.3	12.6	11.3	9.1	7.0	14.5	10.3
rye.....	1.2	1.4	.....	1.0	0.9	0.8	1.4	3.4
Fruit, apples.....	1.6	1.1	2.2	2.5	2.3	2.8	2.4	2.0
currants.....	1.1	2.0	0.7	0.4	0.5	0.4	.....	.....
dried apples.....	0.7	0.8	1.0	0.3	0.4	0.6	0.9	.....
dried peaches.....	0.3	0.3	0.7	0.4	0.5	0.5	.....	.....
lemons.....	1.4	2.0	1.3	1.5	1.0	0.6	0.8	0.5
oranges.....	3.1	3.1	3.1	1.7	1.5	4.9	3.2	3.1
raisins.....	1.6	1.2	0.9	0.9	1.2	0.6	.....	.....
Lard.....	7.9	10.3	8.7	10.6	8.7	9.7	9.2	9.1
Ham and bacon.....	3.9	3.0	3.7	.....	.....	.....	.....	.....
Bacon, sugar-cured.....	.....	.....	4.3	4.9	4.4	5.5	6.6	.....
Ham, sugar-cured.....	4.0	3.5	3.5	3.3	4.7	4.4	5.0	5.3
Bacon, sides.....	6.2	5.6	9.5	12.5	13.9	11.2	11.8	12.8
Pork, mess.....	6.8	6.6	10.1	7.7	7.8	6.7	5.8	8.5
Tallow.....	2.5	3.0	2.0	3.0	3.4	2.9	2.7	2.6
Molasses, New Orleans.....	2.4	1.0	2.9	3.6	3.3	2.6	3.6	3.8
Onions.....	.....	.....	.....	0.9	0.6	0.6	0.8	0.5
Peanuts.....	.....	1.7	2.2	1.1	0.9	1.0	.....	.....
Potatoes.....	2.5	5.9	4.2	3.8	3.5	5.9	3.3	3.7
Rice.....	2.0	1.9	2.1	1.0	1.0	1.1	1.5	1.3

TABLE 20 (continued)

	1844	1854	1864	1874	1884	1894	1904	1914
<b>Foods (concluded):</b>								
Salt, Turk's Island.....	7.2	1.9	.....	1.7	1.9	2.5	.....	.....
Kanawha.....	.....	.....	2.8	.....	.....	.....	.....	.....
Ohio River.....	.....	.....	.....	.....	.....	.....	1.9	1.4
Sugar, New Orleans.....	3.4	1.9	3.6	1.9	1.9	1.4	.....	.....
yellow refined.....	.....	.....	.....	.....	.....	.....	1.5	1.5
Cuba.....	3.2	1.9	4.0	.....	.....	.....	.....	.....
refined.....	.....	.....	.....	2.0	1.9	.....	.....	.....
granulated.....	.....	.....	.....	.....	.....	1.4	1.7	1.5
Tea, Young Hyson.....	0.6	0.5	.....	0.6	0.5	0.3	.....	.....
Cloves.....	0.3	0.1	0.2	0.2	0.2	0.1	.....	.....
Nutmeg.....	0.4	0.3	0.2	0.2	0.2	0.2	.....	.....
Pepper.....	0.2	0.1	0.5	0.2	0.2	0.1	.....	.....
Vinegar.....	0.2	0.1	.....	0.2	0.2	0.3	.....	.....
<b>Total.....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Hides and leather:</b>								
Hides, salted.....	31.2	28.8	31.0	29.2	28.7	26.6	.....	.....
flint.....	34.7	36.0	29.3	33.4	30.1	21.1	.....	.....
Leather, sole.....	34.1	35.2	39.2	37.4	41.2	52.3	.....	.....
<b>Total.....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	.....	.....
<b>Textiles:</b>								
Feathers.....	9.2	16.3	27.4	12.6	17.1	16.1	.....	.....
Cordage, Manila.....	12.6	26.5	27.0	13.4	16.9	13.6	.....	.....
Cotton goods.....	78.2	57.2	45.6	74.0	66.0	70.3	.....	.....
<b>Total.....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	.....	.....
<b>Fuel and lighting:</b>								
Candles, star.....	75.8	56.4	45.5	11.4	11.8	11.9	.....	.....
Coal, bituminous.....	24.2	43.6	31.1	66.0	3.8	4.5	.....	.....
anthracite.....	.....	.....	.....	3.4	64.7	64.8	.....	.....
Petroleum.....	.....	.....	23.4	18.3	19.7	18.8	.....	.....
<b>Total.....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	.....	.....
<b>Metals and metal products:</b>								
Iron, pig.....	19.0	21.8	21.8	20.3	20.7	19.1	.....	.....
sheet.....	30.9	22.5	19.5	21.7	18.7	23.6	.....	.....
Nails.....	17.1	14.6	14.8	13.5	17.2	13.0	.....	.....
Shot.....	3.1	4.9	6.4	.....	.....	11.5	.....	.....
buck.....	.....	.....	.....	6.4	7.0	.....	.....	.....
Zinc.....	.....	.....	.....	5.0	4.6	.....	.....	.....
Copper, sheathing.....	15.8	15.9	15.3	.....	.....	.....	.....	.....
ingot.....	.....	.....	.....	15.0	14.6	13.2	.....	.....
Tin.....	7.5	10.1	9.7	7.4	8.2	9.6	.....	.....
Lead, pig.....	6.7	10.2	12.5	10.7	9.0	10.0	.....	.....
<b>Total.....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	.....	.....
<b>Building materials:</b>								
Staves, barrel.....	20.1	25.3	19.0	33.9	46.6	44.3	.....	.....
hogshead.....	20.6	22.1	22.3	29.4	26.2	.....	.....	.....
Poles, hogshead.....	.....	.....	.....	.....	.....	27.3	.....	.....
Oil, linseed.....	10.2	8.6	7.1	3.9	2.8	3.0	.....	.....
Turpentine.....	7.6	6.4	16.0	1.8	1.5	1.5	.....	.....
Glass, window.....	4.8	6.1	4.8	11.4	7.6	10.8	.....	.....
Cement.....	10.9	7.9	4.5	4.2	2.6	2.0	.....	.....
Lime.....	11.0	10.3	5.9	7.7	5.8	6.6	.....	.....
Rosin.....	1.2	1.6	10.8	1.3	0.9	0.7	.....	.....
Nails.....	13.6	11.7	9.6	6.4	6.0	3.8	.....	.....
<b>Total.....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	.....	.....

TABLE 20 (concluded)

	1844	1854	1864	1874	1884	1894	1904	1914
<b>Miscellaneous products:</b>								
Beeswax.....	14.7	11.4	11.4	5.1	7.6	7.0	.....	.....
Soap, castile.....	24.7	15.9	15.3	26.5	27.7	28.0	.....	.....
Bark, chestnut oak.....	9.0	13.4	11.0	4.5	4.8	4.5	.....	.....
Powder, rifle.....	16.0	11.4	10.2	20.6	13.5	13.0	.....	.....
Bran.....	9.9	16.1	10.3	15.3	15.2	15.2	.....	.....
Shorts.....	16.3	21.0	13.6	.....	.....	.....	.....	.....
Middling.....	.....	.....	.....	18.2	16.0	13.6	.....	.....
Whiskey.....	9.0	10.4	27.7	8.5	13.4	15.2	.....	.....
Ginseng.....	0.4	0.5	0.5	1.3	1.8	3.5	.....	.....
<b>Total.....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>.....</b>	<b>.....</b>
<b>Fruits and vegetables:</b>								
Apples.....	19.6	10.6	21.0	24.9	23.9	20.4	20.8	35.8
dried.....	6.5	5.7	6.8	5.2	6.8	6.2	6.8	8.3
Peaches, dried.....	4.1	3.2	6.8	3.8	5.6	3.1	.....	.....
Beans.....	12.7	5.8	6.5	14.1	15.1	12.8	20.3	.....
Currants.....	3.4	4.7	1.6	1.1	1.3	2.4	.....	.....
Lemons.....	4.3	4.7	3.1	3.8	2.6	1.2	2.0	1.6
Onions.....	7.1	6.0	3.2	9.4	6.6	5.0	18.4	13.8
Oranges.....	11.2	8.9	8.9	4.2	3.0	11.2	9.9	12.2
Potatoes.....	24.7	46.7	33.4	28.9	28.1	33.8	21.8	28.3
Raisins.....	6.4	3.7	2.7	4.6	6.1	3.9	.....	.....
<b>Total.....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Cotton goods:</b>								
Sheeting, brown.....	17.2	.....	.....	19.7	20.9	20.3	.....	.....
Prints.....	33.9	.....	.....	20.9	20.6	23.9	.....	.....
Ticking.....	11.6	.....	.....	15.5	19.0	24.1	.....	.....
Rags.....	21.7	69.8	36.0	23.7	20.9	9.4	.....	.....
Yarn, cotton.....	15.6	30.2	64.0	20.2	18.6	22.3	.....	.....
<b>Total.....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>.....</b>	<b>.....</b>
<b>Furs:</b>								
Mink.....	51.2	.....	.....	.....	20.6	33.5	35.9	.....
Raccoon.....	48.8	.....	.....	.....	27.6	19.9	24.1	.....
Fox, red.....	.....	.....	.....	.....	25.8	27.9	26.0	.....
gray.....	.....	.....	.....	.....	26.0	18.7	14.0	.....
<b>Total.....</b>	<b>100.0</b>	<b>.....</b>	<b>.....</b>	<b>.....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>.....</b>

INDEX NUMBERS OF WHOLESALE PRICES OF ALL COMMODITIES WITH CONSTANT AND WITH VARIABLE GROUP WEIGHTS

The two indexes of wholesale prices of all commodities were weighted differently—one with constant weights and the other with variable weights. Many of the commodities that were used sparingly in the early period were high in price. Therefore, smaller weights were given. In the case of commodities that were abundant and cheap, greater weights were given.

In making both indexes, eight groups were combined. High-priced commodities such as iron, sugar, coffee, and imported fruits were used in relatively small quantities; whereas a greater proportion of cheap farm and food products which were produced locally were consumed.

For certain purposes, index numbers of wholesale prices with constant group weights were desirable, especially for checking the amount of change due to using variable group weights. In this index, farm products and foods were given a weight of 25 each for the entire period; textiles, fuel and lighting, metals and metal products, and building materials, 10 each; hides and leather, 4; and miscellaneous products, 6.

Variable group weights are given in table 21. The method of changing group weights was to make 1/46 of the change each January. Thus the

TABLE 21. GROUP WEIGHTS FOR JANUARY OF EACH YEAR, FOR INDEX WITH VARIABLE GROUP WEIGHTS

Group	1844	1854	1864	1874	1884	1890
Farm products.....	30.0	28.8	27.8	26.7	25.7	25.0
Foods.....	26.0	25.8	25.6	25.3	25.1	25.0
Hides and leather.....	5.0	4.8	4.6	4.3	4.1	4.0
Textiles.....	9.0	9.2	9.4	9.7	9.9	10.0
Fuel and lighting.....	7.0	7.7	8.3	9.0	9.6	10.0
Metals and metal products.....	7.0	7.7	8.3	9.0	9.6	10.0
Building materials.....	9.0	9.2	9.4	9.7	9.9	10.0
Miscellaneous products.....	7.0	6.8	6.6	6.3	6.1	6.0
Total.....	100.0	100.0	100.0	100.0	100.0	100.0

weight for farm products fell from 30 in 1844 to 25 in 1890. Other groups were treated similarly. Over a period of years, manufactured products had increased relatively to farm products, foods, hides and leather, and miscellaneous products. To bring out this relative change in importance, variable group weights were necessary. This gave higher weights to cheaper commodities in the earlier years. High-priced commodities were used sparingly, whereas the cheaper commodities were used freely and entered into trade extensively.

In every decade from 1844 to 1884, the percentage of the total index due to each group index was calculated for the month of October. This was done also for October 1890 and October 1900 (tables 22 and 23). For example, giving metals and metal products a weight of 10 in 1844 resulted in their contributing 15.2 per cent to the final index, because they were high in price (table 22); whereas in 1890 the percentage had dropped to 9.9 per cent because these products had declined in price. With variable group weights, metals, with a weight of 7 in 1844, contributed 11.3 per cent (tables 21 and 23). In 1890 the weights were the same in both groups. The weight had been increased, yet the actual percentage had decreased because of a general decline in prices of metals and metal products.

It was thought that with the saving which was made in the use of high-priced materials, and with the small supplies available, the index with variable weights would probably give a better representation of price changes over a number of years.

TABLE 22. PERCENTAGE THAT EACH GROUP WITH CONSTANT GROUP WEIGHTS CONTRIBUTED TO THE ALL-COMMODITY INDEX

Group	Oct. 1844	Oct. 1854	Oct. 1864	Oct. 1874	Oct. 1884	Oct. 1890	Oct. 1900
Farm products.....	17.2	21.3	22.2	24.1	24.3	26.0	24.1
Foods.....	22.7	23.2	26.8	28.3	24.6	24.7	23.6
Hides and leather.....	3.1	2.8	2.6	3.6	4.6	3.4	4.5
Textiles.....	12.1	11.2	6.5	9.9	10.0	10.4	9.1
Fuel and lighting.....	16.7	16.8	14.9	11.6	11.1	7.9	10.1
Metals and metal products.....	15.2	13.3	13.5	10.1	9.3	9.9	10.4
Building materials.....	7.6	6.7	8.3	8.6	10.5	11.2	11.6
Miscellaneous products.....	5.4	4.5	5.2	5.8	5.6	6.5	6.6
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 23. PERCENTAGE THAT EACH GROUP WITH VARIABLE GROUP WEIGHTS CONTRIBUTED TO THE ALL-COMMODITY INDEX

Group	Oct. 1844	Oct. 1854	Oct. 1864	Oct. 1874	Oct. 1884	Oct. 1890	Oct. 1900
Farm products.....	21.8	26.0	25.0	25.8	24.0	26.0	24.1
Foods.....	25.0	25.0	27.8	26.6	24.6	24.7	23.6
Hides and leather.....	4.1	3.5	3.1	4.0	4.8	3.4	4.5
Textiles.....	11.6	11.0	6.3	9.6	9.9	10.4	9.1
Fuel and lighting.....	12.3	13.4	12.6	10.4	10.7	7.9	10.1
Metals and metal products.....	11.3	9.5	11.4	9.1	8.9	9.9	10.4
Building materials.....	7.2	6.3	7.9	8.4	10.5	11.2	11.6
Miscellaneous products.....	6.7	5.3	5.9	6.1	5.7	6.5	6.6
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0

## FARM PRODUCTS

During the Civil War and a few years thereafter, cotton was scarce, so that it rose to several times its pre-war price. In order to prevent distortion, the weights were reduced.<sup>2</sup> This reduction of weights of cotton was compensated by a uniform percentage increase for each of the other farm products. When cotton prices were not available at Cincinnati, adjusted New York prices were used.

## FOODS

Some products such as rice, beans, potatoes, onions, butter, eggs, apples, and peanuts were included in the farm-products groups as well as in the foods group. It was thought better to include these commodities in both groups, because not much processing was involved in changing these raw farm products into foods. Cheese was not included in the farm-products group.

<sup>2</sup> For a fuller discussion of this subject, the reader is referred to *Wholesale Prices for 213 Years, 1720 to 1932*, by G. F. Warren, F. A. Pearson, and Herman M. Stoker. Cornell Univ. Agr. Exp. Sta., Memoir 142, table 54, p. 120-130, 1932.

## HIDES AND LEATHER

Quotations were available for hides for the entire period, and for sole leather for most of the period.

## TEXTILES

Furs were not included in the textiles group because prices were quoted for only a few months of each year. No adjustments were made for the high price of cotton, as was done in the farm-products group.

## FUEL AND LIGHTING

The price of materials used for fuel and lighting fluctuated violently. As a competitor to candles, burning fluid became a common article for lighting. Prices were first reported in 1858. Burning fluid was replaced with coal oil, which was shortly replaced with refined petroleum or kerosene. Burning fluid was given a weight of 0.5 in 1858; it was increased 1 point each year until 1860; in 1861 it was increased  $1\frac{1}{2}$  points; and from 1862 to 1867, it was increased 2 points each year. Candles were decreased 1 point each year from 1858 to 1860; in 1861,  $1\frac{1}{2}$  points; and from 1862 to 1867, 2 points each year. The weights of candles were shifted to bituminous and anthracite coal and refined petroleum or kerosene. The shifting was done rather arbitrarily, and in such a manner as to avoid too violent fluctuation in the index numbers. This was difficult, because of the abrupt changes in the price of coal.

## METALS AND METAL PRODUCTS

With the exception of zinc, the commodities included under metals and metal products were quoted with regularity for most of the period.

## BUILDING MATERIALS

For a short time before 1860, the weight of rosin was added to that of lime. During the Civil War, the weights of rosin and turpentine were added to that of linseed oil. For the purpose of making these adjustments, the comparative price relatives at the beginning and at the end of each period were used. For these shifts, the price relatives for these commodities were more nearly alike than those for other commodities in this group.

## MISCELLANEOUS PRODUCTS

Whiskey was the most important commodity in the miscellaneous-products group, and Cincinnati ranked high in its production. Owing to excise taxes levied during and following the Civil War, the price of whiskey advanced rapidly. Weights were shifted with due regard to the price relatives of other commodities.

## FRUITS AND VEGETABLES

The group comprising fruits and vegetables consisted of ten commodities which were quoted regularly until the last decade of the period. Four of the commodities — currants, raisins, lemons, and oranges — were imported. Weights were shifted slowly and in such a manner as to bring about in the last decade an approximate weighting equal to the best data available as to amounts actually entering into consumption at that time.

## COTTON GOODS

Brown sheeting, prints, ticking, rags, and cotton yarns were combined in the cotton-goods group. No shifting of weights was made after 1872. When shifts were made, each commodity received the same additional weighting.

## FURS

The index of wholesale prices of furs was made for the months in which prices were quoted. Ordinarily, prices were quoted only for the winter.

## OTHER GROUPS

The commodities included in the livestock group and in the grains group were the same as were used in the farm-products group. The weights were used in the same proportion as those given in the farm-products group.

The commodities included in the meats-and-meat-products group were the same as were used in the foods group. The weights were used in the same proportion as those given in the foods group.

## TABULATION

The method used in the study was to take the average of the high and the low from three weekly quotations as reported in the *Price Current*, excluding the first and the last week of the month. The weeks used were thought likely to give a truer picture of monthly prices than would the week at the beginning or at the end of the month. Prices were taken from thirty-six issues each year. If only one quotation was given, this was used to represent the high and the low unless it was thought best to use some other quotation. It was not found necessary to make many such changes.

## METHOD OF CALCULATION

The base period used was from 1876 to 1891, a total of 192 months. The average price of each commodity was taken as equal to 100, and the average monthly prices were expressed in percentages of this and weighted by the weight. Obviously, this would be a rather cumbersome procedure. The operation was simplified by multiplying the price by the weight which was the weight divided by the average price in the base period.

The calculations for every commodity were added, to make the index of wholesale prices on the 1876-1891 base. When it was necessary to substitute one commodity for another, an overlapping period was calculated in such a manner that it would make no material change in the index during the overlapping period.

## SEASONAL VARIATIONS

The seasonal variations of the different groups for the base period 1876-1891 were calculated (table 24). For some of the groups the greatest variation took place early in the year.

TABLE 24. SEASONAL VARIATION IN INDEX NUMBERS OF WHOLESALE PRICES  
(1876-1891 = 100)

Group	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Farm products.....	103	104	103	104	105	101	97	96	97	97	96	98	100
Foods.....	102	102	101	101	103	102	97	97	99	100	99	99	100
Hides and leather.....	102	101	101	100	99	98	99	99	99	100	100	101	100
Textiles.....	102	102	102	101	99	98	98	99	100	100	100	100	100
Fuel and lighting.....	103	101	94	92	92	93	95	97	105	107	114	105	100
Metals and metal products.....	105	104	103	101	99	97	97	97	98	100	100	100	100
Building materials.....	101	101	99	99	99	99	98	99	100	101	101	102	100
Miscellaneous.....	102	102	103	103	101	97	96	97	100	100	100	100	100
All-commodity index:													
Constant group weights.....	103	102	101	101	101	99	97	97	99	100	100	100	100
Variable group weights.....	103	102	101	101	101	99	97	97	99	100	100	100	100
Livestock.....	100	106	107	107	104	99	102	100	99	94	89	92	100
Meats and meat products.....	98	101	101	100	100	99	100	102	104	102	98	95	100
Grains.....	99	100	100	105	106	101	98	98	98	100	98	97	100
Fruits and vegetables..	98	101	103	108	130	128	98	86	86	86	87	91	100
Cotton goods.....	103	103	102	101	99	98	98	98	99	99	99	100	100

The all-commodity index with constant group weights, as well as that with variable group weights, varied from 97 in July and August to 103 in January.

Of the eight major commodity groups, the index numbers of wholesale prices of hides and leather, of textiles, and of building materials, showed the least variation, with a total of 4 points; and fuel and lighting showed the greatest variation, with 22 points. Fuel and lighting was greatly influenced by the condition of the Ohio River. When coal could be transported down the river, this index was stable.

In the six special groups, livestock reached the peak of 107 in March-April, with a low of 89 in November, a difference of 18 points. Meats and meat products varied from 104 in September to 95 in December, a difference of 9 points. Seasonal variation of meats and meat prices is only half that of livestock. Fruits and vegetables varied from 130 in May to 86 in August, September, and October, a difference of 44