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Source: *Journal of Political Economy*, Vol. 63, No. 1 (Feb., 1955), pp. 20-40

Published by: The University of Chicago Press

Stable URL: <http://www.jstor.org/stable/1826773>

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Journal of Political Economy

MONEY, PRICES, AND WAGES IN THE CONFEDERACY, 1861-65

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I

THE money spent by the Confederate government to purchase war supplies came largely from the printing press; tax collections and bond sales raised relatively small amounts. As the ratio of money to goods available increased, prices rose. Union armies continuously reduced the area in which Confederate notes were accepted as money, and southerners living in captured territory shipped large amounts of these notes to the sections where it still passed as currency. Like government deficits, the Confederate notes received from occupied territory increased the stock of money in areas still controlled by the Confederate government. The rising prices became, in effect, a tax on holding money; to avoid the tax, people spent their money more rapidly, driving prices still higher.

As the war continued, the real output of the Confederacy declined. Many of the most capable white workers left the labor force and joined the army. The northern blockade forced the South to become self-sufficient, isolated the Confederacy from the benefits of foreign trade, and compelled southern labor to be used where it formerly had the least comparative advantage. Worn-out or destroyed machinery was difficult to replace, and northern troops concentrated on razing railroad equipment and entire factories and on cutting the supply lines of raw materials. The increase in the stock of money, the rise in velocity, and the decline in real output in the Confederacy

from 1861 to 1865 produced the worst inflation of our history since the Revolutionary War.

In Sections II and III of this paper, I construct money and price indexes for this period; in Sections IV, V, VI, and VII, I describe price movements in various parts of the South and the effect of the northern blockade; in Section VIII, I discuss the real value of money; in Sections IX, X, and XI, wage movements; and in Section XII, the popular response to the inflation.

II

The stock of paper money in the South consisted of Confederate issues, bank notes and deposits, state treasury notes,¹ shinplasters,² and legalized counterfeits. I estimated the amount of Confederate notes outstanding from the periodic reports of Secretaries Memminger and Trenholm; and I used United States Treasury figures, southern bank reports, and unpublished bank records to estimate the amount of bank credit issued.³

¹ These were issued in Alabama, Florida, Georgia, Louisiana, Mississippi, and North Carolina (John C. Schwab, *The Confederate States of America, 1861-1865* [New York: Charles Scribner's Sons, 1901], pp. 149-51).

² This was the name given to notes with a face value of less than one dollar issued by cities, railroads, turnpike companies, factories, insurance companies, savings banks, and other southern businesses.

³ Scattered bank reports are available for five southern states during the war. Georgia figures can be found in the annual reports of the controller-general. Figures for the Bank of the State of South Carolina are available in South Carolina state documents. Virginia bank figures are available in the *Richmond*

State treasury notes, shinplasters, and legalized counterfeits were ignored, because their combined total value was insignificant compared with the amount of Confederate notes and bank credit issued.

the light of the large amount of Confederate notes issued, this increase seems remarkably small. The rise in the stock of money was thus limited because banks sharply increased their reserve ratios as the war continued.

TABLE 1
TOTAL STOCK OF MONEY IN THE SOUTH IN MILLIONS OF DOLLARS

| Date | Bank Notes and Deposits* | Confederate Government Notes | Total | Index: January, 1861 = 100 |
|--------------|--------------------------|------------------------------|---------|----------------------------|
| 1861: | | | | |
| January..... | \$ 94.6 | | \$ 94.6 | 100 |
| April..... | 121.8 | | 121.8 | 130 |
| June..... | 119.3 | \$ 1.1 | 120.4 | 130 |
| October..... | 146.3 | 24.5 | 170.8 | 180 |
| 1862: | | | | |
| January..... | 165.2 | 74.6 | 239.8 | 250 |
| April..... | 151.1 | 131.0 | 282.1 | 300 |
| June..... | 142.9 | 166.1 | 309.0 | 330 |
| October..... | 181.5 | 287.3 | 468.8 | 500 |
| 1863: | | | | |
| January..... | 239.1 | 410.5 | 649.6 | 690 |
| April..... | 257.1 | 561.7 | 818.8 | 870 |
| June..... | 267.5 | 637.3 | 904.8 | 960 |
| October..... | 274.7 | 792.4 | 1,067.1 | 1130 |
| 1864: | | | | |
| January..... | 268.1 | 826.8 | 1,094.9 | 1160 |

* These figures are not adjusted for interbank deposits and are therefore biased upward.

My estimates indicate that the stock of money in the South increased approximately eleven fold in the three years from January, 1861, to January, 1864. In

Commercial banks had no central bank to support them during crises. Southern bankers expected mass withdrawals whenever Union troops ap-

Enquirer for January 1, 1861; October 1, 1861; April 1, 1862; January 1, 1863; and January 4, 1864. (Since the same banks are not always included in these reports, link relatives were used to determine percentage increases in notes and deposits.) Figures for Louisiana are available in her state documents, but unfortunately this series ends with the capture of the state. North Carolina figures, available in several documents, are of limited utility, because each bank reported on a different date. In addition to these sources, complete bank records for some banks are available in manuscript form at Duke University, the University of Virginia, and the North Carolina State Archives.

From these sources I calculated the number of times by which bank credit expanded in each of these states during the war. The banks of Florida and Alabama were assumed to have behaved like those

of the neighboring state of Georgia. Tennessee banks were assumed to have behaved like those of Louisiana, because both states were occupied by Union forces at approximately the same time. Banks in Mississippi, Arkansas, and Texas were omitted for lack of data.

The amount of notes and deposits outstanding in southern states on January 1, 1861, was taken from the United States Treasury figures. Unfortunately, no figures are available for Texas, Arkansas, or Mississippi.

By multiplying the number of times bank credit expanded in each state by the number of notes and deposits outstanding in each state on January 1, 1861, I estimated the amount of notes and deposits outstanding during the war. These estimates were added to the amount of Confederate notes issued. They are presented in Table 1.

proached, and they protected themselves the only way they could—by limiting the amount of credit they created. Georgia banks had 47 per cent reserves in June, 1862, and 69 per cent in June, 1863; the Bank of Fayetteville had 21 per cent in May, 1861, and 46 per cent in November, 1863; the Bank of South Carolina had 5 per cent in January, 1861, and 30 per cent in October, 1863; the Bank of the Valley in Virginia had an average of 41.2 per cent in 1861, 56.5 per cent in 1862, 57.2 per cent in 1863, and 66.6 per cent in 1864.⁴

In the North during these war years, \$1.49 was created by the banks per dollar printed by the government.⁵ In the South, as of January, 1864, only \$1.20 had been created by the banks per dollar printed by the government. The stock of money, and therefore prices, would have risen still more had southern bankers not increased their reserve ratios.

III

Abundant price quotations during the Civil War are available for the cities of Richmond, Virginia; Wilmington and Fayetteville, North Carolina; and Augusta, Georgia. Richmond, the capital of the Confederacy, was overcrowded and un-

⁴ During the summer of 1864, bank reserves in some areas declined. In Georgia the reserves were 63.5 per cent in June, 1864. This decline occurred because of the large amount of cash lost by withdrawals for the currency reform of February 17, 1864. The record books of the Bank of the Valley reflect these withdrawals as follows:

| Date | Total Deposits |
|--------------------|----------------|
| Feb. 3, 1864..... | \$416,593.24 |
| Feb. 15, 1864..... | 345,566.62 |
| Feb. 29, 1864..... | 318,616.56 |
| Mar. 14, 1864..... | 264,379.57 |
| Mar. 31, 1864..... | 17,934.34 |
| Apr. 30, 1864..... | 3,747.27 |

These withdrawals indicate the public's reluctance to deposit money in banks (i.e., to save in this form) after the currency reform.

⁵ Milton Friedman, "Price, Income, and Monetary Changes in Three Wartime Periods," *American Economic Review*, XLII (May, 1952), 635.

der frequent attack throughout the war. Wilmington was described as a veritable "fairy city" where boats that ran the blockade landed and sold their goods. Augusta became an important supply base for part of the southern army, and Fayetteville was a small, inland community. Because each of these cities had unique characteristics and because they were several hundred miles apart, any generalization that is valid for all four can probably be extended over a somewhat broader area without great error.

Wholesale prices are preferable to retail prices for a study of inflation, because they "govern" the retail level and are more uniform and homogenous than retail prices. To depict the price movements of commodities, regularly and systematically reported quotations are necessary. The wholesale-price quotations used in this study were taken from the local newspapers that reported regularly on market conditions.⁶ These quotations are more readily available and much easier to use than the prices recorded in the best alternative source, the account-books of firms.

From newspaper quotations, five unweighted arithmetic price indexes were constructed:⁷ one for each of the four cities selected, and one averaging the commodity prices of all four cities.

Continuous price series were con-

⁶ I used the *Richmond Enquirer*, *Richmond Whig*, *Richmond Dispatch*, *Richmond Sentinel*, *Wilmington Journal*, *Fayetteville Observer*, *North Carolinian*, *North Carolina Presbyterian*, *Daily Chronicle and Sentinel* (of Augusta), and *Daily Constitution* (of Augusta).

⁷ A simple average of relatives gives equal weight to each item; in measuring the rate of rise of prices, Mitchell felt this was the best kind of index to use when the price rise was caused by an increase in the money supply (Wesley C. Mitchell, *The Making and Using of Index Numbers* [Bureau of Labor Statistics Bull. 656 (Washington, D.C.: Government Printing Office, 1938)], p. 8).

structed⁸ for 28 commodities in Richmond, 23 in Fayetteville, 34 in Augusta, and 25 in Wilmington.⁹ The monthly price relatives of each commodity were calculated, using the commodity's average price during the first four months of 1861 as a base.¹⁰ These price relatives were then averaged to form the price index for each city. The general price index for the entire eastern part of the Confederacy was prepared by averaging

⁸ To construct these price series, the quotations for each item continuously listed in the newspapers were recorded. (About three times as many quotations were collected from these sources as could be used. Discontinuous series were rejected.) When only one quotation was available for a commodity in a given month, as occasionally happened, this figure was taken as typical of the commodity's price during that month. More often, two or three quotations were available. When I had two quotations for a given month, I took their simple average as typical of the price for the month. When I had three quotations, I gave equal weight to both the beginning and end of the month. (If I had quotations for, say, the first, fifteenth, and thirty-first, I averaged all three quotations. If I had quotations for the first, twenty-fifth, and twenty-eighth, I rejected the twenty-eighth and used only the figures for the first and twenty-fifth.) In most cases, however, at least one quotation a week was available, and the four quotations for the month were averaged.

⁹ The complete list of commodities for each city is:

Richmond—corn, rye, red wheat, flaxseed, hay, oats, cotton, tobacco, bacon, butter, lard, cornmeal, family flour, extrafine flour, superfine flour, Irish potatoes, rice, salt, sugar, coffee, molasses, tallow candles, adamantine candles, whiskey, sole leather, upper leather, beeswax, lime.

Fayetteville—corn, rye, wheat, flaxseed, cotton, wool, bacon, lard, family flour, peas, molasses, New Orleans sugar, salt, tallow, iron, nails, peach brandy, apple brandy, cotton yarn, sheeting, green hides, beeswax, spirits of turpentine.

Augusta—corn, wheat, hay, cotton, bacon, butter, eggs, chickens, lard, cornmeal, family flour, peas, rice, coffee, molasses, sugar, pork, salt, tea, beef, bagging, 4/4 sheeting, cotton yarn, 7/8 shirting, osnaburgs (defined in n. 43 below), 3/4 shirting, cotton rope, New Orleans whiskey, apple brandy, peach brandy, nails, iron, dry hides, starch.

Wilmington—corn, hay, cotton, bacon, beef, butter, eggs, chickens, live turkeys, dead turkeys, pork, lard, cornmeal, superfine flour, peanuts, sheeting, wool yarn, beeswax.

fifty-seven¹¹ different commodity price series taken from all four cities.¹² This index is presented in Figure 1 and Table 2.

IV

For thirty-one consecutive months, from October, 1861, to March, 1864, the general price index of the Confederacy rose at an almost constant rate of 10 per cent a month. As the real value of money fell, Confederate notes were no longer used as a store of value. Lenders refused to extend credit unless they were repaid in gold, leather, or some other commodity. When debtors tried to use the inflated currency to pay off obligations incurred

¹⁰ Since the Confederacy did not reach full strength until May, 1861, when all eleven states had seceded, this base seemed reasonable to me when I constructed these indexes. At the suggestion of Professor Earl J. Hamilton, I investigated the possibility that prices were already inflated by the first quarter of 1861 because southerners had anticipated war and hoarded goods. The best available price study for the South prior to the Civil War, Professor George Taylor's thirteen-commodity index for Charleston, was used. The quarterly figures for 1858 and 1859 were taken as a base. Professor Taylor's index reveals the following rise in prices:

| Date | Price Index (1858-59 = 100) |
|-----------------|--------------------------------|
| Jan., 1861..... | 109.6 |
| Feb., 1861..... | 111.1 |
| Mar., 1861..... | 110.9 |
| Apr., 1861..... | 110.2 |

These figures suggest that during the first quarter of 1861 prices were 10 per cent above the 1858 and 1859 average and indicate that the 1858-59 period would have been a more suitable base.

¹¹ The items in this index are: wool, corn, cotton, flaxseed, hay, oats, rye, tobacco, wheat, bacon, beef, butter, chickens, cornmeal, coffee, eggs, extrafine flour, family flour, superfine flour, lard, molasses, peanuts, peas, pork, Irish potatoes, sweet potatoes, rice, salt, sugar, tea, dead turkeys, live turkeys, adamantine candles, tallow candles, bagging, cotton rope, osnaburgs, 4/4 sheeting, 3/4 shirting, 7/8 shirting, cotton yarn, wool yarn, iron, nails, apple brandy, peach brandy, New Orleans whiskey, hides, soles, upper leather, beeswax, lime, spirits of turpentine, starch.

¹² If the same commodity appeared in two or more cities, its average price relatives were recorded. Where a commodity appeared in only one city, that series alone was recorded. These figures were then averaged to form the general price index.

before the war, creditors refused to accept payment. J. D. Davidson, an attorney in Lexington, Virginia, received numerous letters like the following: "Some time about the 1st of the present month, Mr. Jack Jordan again came to me when I refused to take the money [for his debt] owing to the condition of the currency."¹³

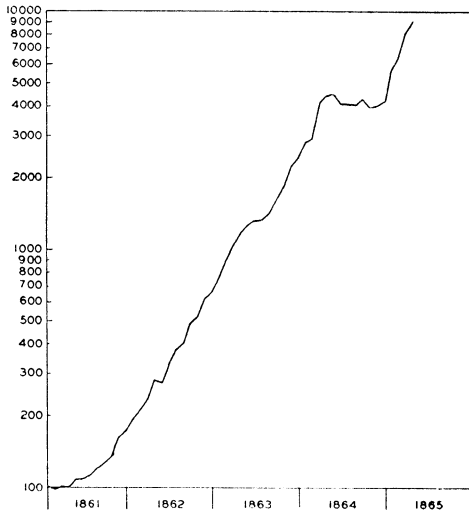


FIG. 1.—The general price index of the Confederacy. (First four months of 1861 = 100.)

Davidson's clients wanted to wait until the war was over and the price level lower before they accepted payment.

As early as 1862 some firms stopped selling their produce for currency alone. Customers had to offer some commodity along with their Confederate notes to complete the purchase, a practice that became widespread during 1863. The Gregg Cotton Mills received numerous letters from other manufacturers requesting the exchange of products. One person wrote: "Money will buy little or nothing here and unless I can find some

¹³ University of Wisconsin Historical Society, McCormic Collection, Special Davidson Collection, Charles Aenentrout to James D. Davidson, March 13, 1864, Fol. Jan., 1863-65.

means of getting food for my workmen, I fear I shall lose them."¹⁴

As the war went on, money continued to fall in value. By April, 1865, the general price index had risen to ninety-two times its prewar base.

Changes in velocity, in the stock of money, and in the supply of goods determined price changes. Contrary to popular opinion, commodity price movements were not directly affected by military events.¹⁵ On February 17, 1864, the Confederate Congress enacted a currency reform. All existing notes except small notes were to be exchanged for new currency at the ratio of three for two by April 1, 1864.¹⁶ In anticipation of the re-

TABLE 2
GENERAL PRICE INDEX OF THE EASTERN
SECTION OF THE CONFEDERACY
(First Four Months of 1861 = 100)

| MONTH | YEAR | | | | |
|----------------|------|------|-------|-------|-------|
| | 1861 | 1862 | 1863 | 1864 | 1865 |
| January..... | 101 | 193 | 762 | 2,801 | 5,824 |
| February..... | 99 | 211 | 900 | 2,947 | 6,427 |
| March..... | 101 | 236 | 1,051 | 4,128 | 8,336 |
| April..... | 101 | 281 | 1,178 | 4,470 | 9,211 |
| May..... | 109 | 278 | 1,279 | 4,575 | |
| June..... | 109 | 331 | 1,308 | 4,198 | |
| July..... | 111 | 380 | 1,326 | 4,094 | |
| August..... | 120 | 419 | 1,428 | 4,097 | |
| September..... | 128 | 493 | 1,617 | 4,279 | |
| October..... | 136 | 526 | 1,879 | 4,001 | |
| November..... | 161 | 624 | 2,236 | 4,029 | |
| December..... | 172 | 686 | 2,464 | 4,285 | |

form, southerners began to spend their old notes more rapidly. Prices rose im-

¹⁴ Letter from J. Ralph Smith, general supervisor of the State Works of South Carolina, to William Gregg, September 4, 1863 (Raphael P. Thian [ed.], *Appendix* [Washington, D.C., 1878], II, 140).

¹⁵ The single exception that I found was the siege of Richmond during 1864. This will be treated in greater detail later.

¹⁶ For a more complete discussion of this act, see my article in the *Journal of Political Economy*, XLII (December, 1954), 521-22.

mediately; the general price index rose 23 per cent from February to March, 1864. In May, 1864, the currency reform began to take hold. The general price index dropped dramatically and stayed low through December. This decline took place despite the invading Union armies, the reduction in foreign trade, the impending military defeat, and the low morale of the army. The currency reform was more significant than these powerful forces.

V

To compare the price rise of each city with the average price rise in the entire

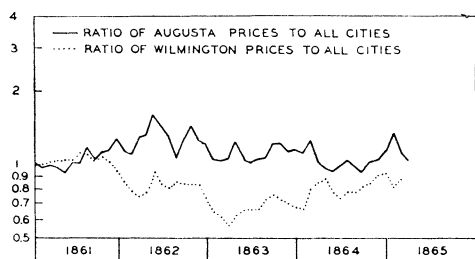


FIG. 2.—Comparison of Augusta and Wilmington prices to prices for all cities. (All cities = 1.0.)

eastern section of the Confederacy, the index for each city was deflated by the general price index. The results are plotted on two graphs, Figures 2 and 3, to facilitate reading. Values greater than 1 indicate that prices rose more from the base period in the city in question than in all four cities; values less than 1 indicate that prices rose less.

Figure 2 compares Wilmington and Augusta, the two cities whose price indexes deviated most from the general price rise during the early years of the war. A large part of the difference between these two price series is explained by their composition. The index for Augusta contains five items not included in the Wilmington index: New Orleans

whiskey, apple brandy, peach brandy, nails, and iron. The prices of these commodities increased considerably faster than an average of all prices. The output of spirits was restricted to save corn for consumption, and the demand for iron increased because of military needs. These commodities give the Augusta index a strong upward bias.

New indexes were constructed that eliminate this bias by including only items common to Augusta and Wilmington. When these new indexes were deflated by the general price index, the two series usually were closer together.¹⁷ This suggests that, had the indexes of all four cities contained a still larger number of common items, the estimated price rises of the four cities would be even more uniform than Figures 2 and 3 indicate.

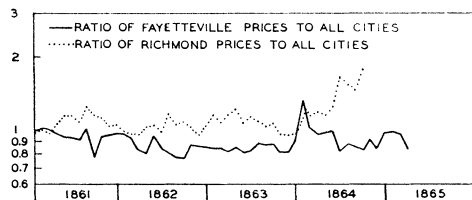


FIG. 3.—Comparison of Fayetteville and Richmond prices to prices for all cities. (All cities = 1.0.)

In Figure 3, Fayetteville and Richmond are compared. The most significant aspect of Figure 3 is the sudden and rapid rise in the Richmond series after January, 1864. This rise, indicating that prices rose faster in Richmond than in the general index, suggests the effectiveness of Union troops in cutting the city's supply lines. They confirm General Sherman's observation that in 1864 goods were scarcer in Richmond than in the Confederacy as a whole.

¹⁷ The new indexes were farther apart in only four months: April, 1861; July, 1861; April, 1864; and October, 1864.

Figures 2 and 3 indicate that prices rose approximately the same amount from the base period in all four cities during the first three years of the war. Only Richmond prices broke away from the general price movement in 1864.¹⁸ These statistics imply that communication and transportation facilities were not so deteriorated that traders could no longer take advantage of large price differentials. Rather, they imply that the businessmen of the South continued to ship goods from one area to another throughout the war, making for uniform price rises.¹⁹

VI

Since most commodities are substitutes for some others, a student of price movements usually expects all commodity prices to rise or fall at approximately the same rate. Although numerous special circumstances affecting each product cause the rates of price change to vary somewhat, an extremely strong force is necessary to keep the price changes of different commodities radically different over the short run.²⁰

During the Civil War the blockade imposed by the North was just such a force. The effect of the blockade was to shift to the right the supply curves for

¹⁸ These figures suggest a picture different from the one now held by some historians (E. Merton Coulter, *The Confederate States of America, 1861-1865* [Baton Rouge: Louisiana State University Press, 1950], p. 220, and Charles Ramsdell, *Behind the Lines in the Southern Confederacy* [Baton Rouge: Louisiana State University Press, 1944], *passim*).

¹⁹ A hypothesis accounting for these figures is that horses and wagons, not railroads, were the most important form of transportation in the South, and these simple facilities could be repaired or replaced more readily when destroyed than railroad equipment.

²⁰ Rapid technological advance in the production of one commodity, for instance, could account for different rates of price rise. It is assumed throughout this section that great technological gains were not made in the South during the war.

the home market of goods formerly exported, which tended to lower their prices, and to shift to the left those of goods formerly imported, which tended to raise their prices.²¹ The more essential foreign markets or foreign producers were to a commodity, the greater was the shift in the product's supply schedule to the home market and the more pronounced its price change.

The effect of the blockade on southern prices can be illustrated by dividing the commodities that make up the general price index into four mutually exclusive categories: imports, partly imported goods, exports, and domestic products.²² Partly imported goods are those the Confederacy produced only in limited quantities; to satisfy the demand, they were also imported. Domestic products are those neither exported nor imported and therefore not directly affected by the blockade. The price indexes of these four groups are shown in Figure 4.

These figures show in striking fashion the distorted price movements in the Confederacy caused by the northern blockade that closed southern ports. Instead of constantly crisscrossing, as in "normal" times, the prices of these groups fall into four neat rows. Commodities entirely imported had their supply virtually cut off, and their prices rose the most. The blockade did not affect the home production of partly imported goods, and their prices rose less.

²¹ Legislation passed by both sides to prevent trading with the enemy had the same effect.

²² These categories include: *imports*—wool, molasses, sugar, coffee, tea, and salt; *exports*—tobacco, cotton, peanuts, peas, rice; *partly imported*—bagging, cotton rope, 4/4 sheeting, 3/4 shirting, 7/8 shirting, cotton yarn, wool yarn, iron, cut nails, soles, uppers; *domestic*—corn, flaxseed, hay, rye, wheat, bacon, beef, butter, chickens, cornmeal, eggs, family flour, extrafine flour, superfine flour, lard, Irish potatoes, sweet potatoes, dead turkeys, live turkeys, tallow, osnaburgs.

The prices of domestic goods, which were not directly affected by the blockade, rose still less. The prices of goods formerly exported rose least of all: King Cotton was begging for buyers in southern markets.

These different price rises suggest the reason why blockade-runners carried "Yankee gee-gaws, silks and trinkets" rather than necessities: the price of wheat, corn, and other products produced in limited quantities in the Confederacy simply did not rise fast enough.

Differences in the rates of price rise among commodities caused changes in the income distribution of the Confederacy. The once wealthy planters, who derived the bulk of their income from crops normally exported, lost relative to all other classes. In an attempt to protect themselves from the effects of the blockade, planters demanded immediate government aid.²³ However, their pleas for

²³ In Danville, Virginia, it was reported to the Treasury Department that "there seems to be a strong desire generally to place almost the entire crop under the control of the government. This sentiment is not slight. A general and strong desire prevails that this course is absolutely necessary" (letter from Almanzon Huston to Memminger, June 16, 1861 [Thian (ed.), *op. cit.*, I, 140]).

In a letter to the editor of the *New Orleans Delta*, the alternative to government subsidies to planters was ominously suggested: "If the planters are prohibited from sending their cotton to market until the blockade is raised, and they are to receive no money in the meantime, how are they to get along? Their negroes must have shoes and winter clothing; their families must have something; their country store debts must be paid, else the country merchants cannot pay their debts to the wholesale city merchants. Therefore, they can get no goods, and the whole business of the country is completely broken up" (October 3, 1861 [*ibid.*, p. 358]).

Other letters to the Secretary of the Treasury pointed out that, because the blockade lowered the price of cotton and tobacco, planters were unable to buy Confederate bonds or to pay their taxes (letter from F. S. Lyon to C. J. McRaie, May 13, 1861 [*ibid.*, p. 98]; letter from C. T. Lowndes to Memminger, June 13, 1861 [*ibid.*, p. 133]; letter from James F. White and J. W. Drake to Jefferson Davis, July 13, 1861 [*ibid.*, p. 211]; and many others).

subsidies were rejected. Mrs. Chestnut's well-known diary portrays in detail the plight of southern planters who tried to maintain their former living standards in the face of their reduced real income.

VII

The blockade was felt in every corner of the southern economy. It not only distorted prices and changed the distribution of income; it also affected the food people ate and the goods they produced.

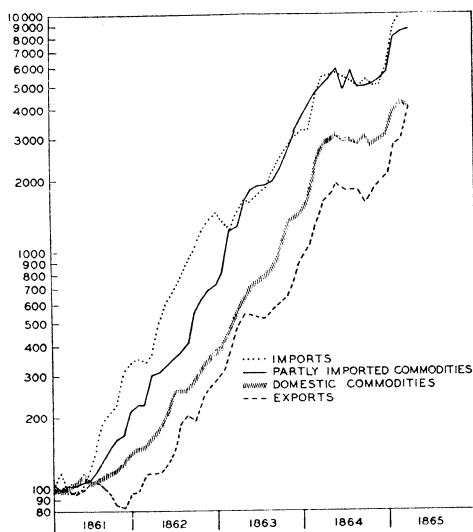


FIG. 4.—Price indexes of commodity groups. (First four months of 1861 = 100.)

The ratio of the price index of imported goods to that of exported goods is shown for each month in Figure 5. This ratio rises very rapidly through November, 1861, indicating that the difference between the price rise of exports and that of imports widened during the early months of the war. Stocks of commodities normally exported accumulated, tending to lower their price;²⁴ and sup-

²⁴ Since the southerners tried to coerce European countries into recognizing the Confederacy in 1861, some voluntarily withheld their cotton from the European trade.

plies of goods normally imported declined, tending to raise their price.²⁵

The South's small industrial base made it difficult for her to begin producing commodities normally imported. The shift in output was further complicated by the "bottlenecks" caused by shifting production rapidly from peacetime to wartime goods. Like so many countries in Europe during World War I, the Confederacy hoarded manpower in its army and overmobilized. The army drained the economy of necessary laborers, and, as the war continued, troops had to be delegated to work in factories.

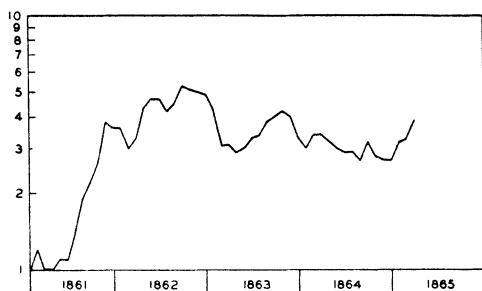


FIG. 5.—Ratio of import prices to export prices. (January, 1861 = 1.0.)

Nevertheless, the effect of the blockade was greatest in the short run. Gradually substitutes, though poor ones, were found for imported goods. Various roots and dried bark replaced coffee; wooden shoes were used instead of leather ones; sorghum took the place of sugar. Other imported goods, such as paper, were used more sparingly; letters were written on crude brown paper, sheets torn out of ledger-books, and the insides of envelopes. A few formerly imported commod-

ities, such as salt, were produced at home; it was not uncommon to see people wash and boil the ground under their smokehouses to salvage the salt drippings from animals slaughtered in earlier years. By these slow, often painful means, the demand for imports was gradually reduced, though until September, 1862, not as rapidly as their supply was falling.

Beginning in October, 1862, the ratio of import prices to export prices followed a downward trend. Planters shifted from growing cotton to growing products whose prices rose faster. "The cotton crop harvested in the fall of 1861 amounted to about 4,500,000 bales; the next year it dropped to about 1,500,000; in 1863 it was somewhat less than 50,000; and the next year it was about 300,000."²⁶ On the other hand, the demand for cotton rose as wool and other materials became more expensive. The decreased supply and increased demand made the price of cotton, like that of other exports, rise more rapidly.

VIII

The general price index of the Confederacy increased twenty-eight fold from the first quarter of 1861 to January, 1864. During the same period the stock of money increased only eleven fold. The difference between these ratios is attributable to increases in the velocity of money and to decreases in the South's real output. Unfortunately, one cannot determine with strict accuracy from the statistical data now available the extent to which each of these forces changed. However, a measure of their combined strength is given by the real value of the

²⁵ Ramsdell also attributed much of the rapid rise in the price of cloth in 1861 to the depletion of stocks (Charles Ramsdell, "The Control of Manufacturing by the Confederate Government," *Mississippi Valley Historical Review*, VIII [December, 1921], 234).

²⁶ Coulter, *op. cit.*, p. 242. These figures appear to me to be extreme. However, they are suggestive of the change in production that went on during this period.

stock of money.²⁷ This statistic increases if velocity falls or real income rises and declines if velocity rises or real income falls.

Estimates of changes in the real value of Confederate cash balances are shown in Table 3. Until June, 1862, the index of real value was greater than 100, the level of January, 1861. Instead of reducing their cash holdings immediately, southerners held notes longer, suggesting that they were slow to realize that inflation was under way. In October, 1862, when it was clear that more inflation was in store, the value of cash balances fell below the January, 1861, level. After this date, prices rose more than the stock of money increased.²⁸

This pattern, in which the aggregate real value of cash balances first rises, then falls, has been found in every major inflation for which statistical data are available. Keynes, in describing the inflations of post-World War I in Europe, accounted for this repeated occurrence as follows:

At first there may be a change of habit in the wrong direction, which actually facilitates the Government's operation [of collecting taxes by issuing notes]. The public is so much accustomed to thinking of money as the ultimate standard, that, when prices begin to rise, believing that the rise must be temporary they tend to hoard their money and to postpone purchases, with the result that they hold in monetary form a larger aggregate of real value than before. . . . But sooner or later the second phase sets in. The public discovers that it is the holder of notes that suffer taxation and defray the expenses of government and they begin to change their habits and to economize in their holding of notes.²⁹

²⁷ Since $MV = PY$, $M/P = Y/V$, where M is the stock of money; P , the price level; Y , real income; and V , income velocity.

²⁸ This study ends in January, 1864, the last date for which I was able to obtain figures on the quantity of money in circulation in the South. I believe that the real value of the stock of money continued to decline until the end of the war.

On January 10, 1863, Secretary Memminger stated that velocity had fallen to two-thirds of its prewar rate.³⁰ If the

TABLE 3
THE REAL VALUE OF MONEY

| Date (1) | Increase in Stock of Money (Jan., 1861 = 100) (2) | Index of Commodity Prices (Jan., 1861 = 100) (3) | Real Value of the Stock of Money (Col. 2 ÷ Col. 3) (4) |
|-----------------|--|---|---|
| 1861: | | | |
| January | 100 | 100 | 100 |
| April | 129 | 100 | 129 |
| June | 127 | 108 | 117 |
| October | 180 | 135 | 134 |
| 1862: | | | |
| January | 253 | 191 | 133 |
| April | 298 | 279 | 107 |
| June | 337 | 328 | 102 |
| October | 496 | 522 | 95 |
| 1863: | | | |
| January | 687 | 756 | 90 |
| April | 666 | 1,168 | 57 |
| June | 959 | 1,296 | 74 |
| October | 1,129 | 1,858 | 61 |
| 1864: | | | |
| January | 1,159 | 2,776 | 42 |

²⁹ John M. Keynes, *A Tract on Monetary Reform* (New York: Harcourt, Brace & Co., 1924), pp. 50-51.

³⁰ Secretary Memminger's full statement is as follows: "In a former report it was shown that the circulation of the Confederate States before the war might be estimated at \$100 million. [My estimate of the quantity of money outstanding in the South before the war is very close to that of the Secretary of the Treasury. Mine is \$94.5 million; his, \$100 million.] In the existing state of things, it is probable that a larger amount of currency is required. In time of peace money passes rapidly from hand to hand, and the same money in a single day will discharge many obligations. A large portion, too, of the operations of business is performed by bills of exchange and bank checks. In the present stagnation of commerce and intercourse, larger amounts of ready money are kept on hand by each individual, and the Confederate Treasury Notes and Call Certificates are used as substitutes for bills and drafts to a considerable extent. If this view be just, we may venture to add as much as 50 per cent to the usual amount of currency, and this would raise the sum total at which it might stand to \$150 millions. The difference between this sum and the actual circulation will show the redundancy (Memminger, "Report of January 10, 1863" [Thian (ed.), *op. cit.*, III, 102]).

Secretary's estimate was correct, the real income of the South declined 40 per cent by January, 1863.³¹ If he was correct only in that velocity fell, the decline in the real value of money by January, 1863, would still be attributable to the drop in the South's real output.

During the first two years of the war the real income of the South fell because the Confederate army drained large numbers of white men from the labor force. General Clement A. Evans estimated that approximately 40 per cent of the white men of military age were in the army.³² Colonel Thomas L. Livermore put the number still higher and thought that "substantially the entire military population of the Confederate States not exempted by law were enrolled in the army."³³ The jobs left vacant could not be filled immediately. Old men, women, slaves, or wounded veterans were the replacements for men called to service; these workers were not so productive as the men they replaced.

As war continued, the invading Union armies, the northern blockade, and the reallocation of southern labor tended to reduce output. These disturbing forces, however, were partly offset. Patriotism

³¹ The real value of cash balances had declined to 0.9 by January, 1863. If velocity fell to two-thirds, real income must have been only 60 per cent of its January, 1861, amount.

³² General Evans found 318,000 men enrolled in the army on January 1, 1862; 465,584 on January 1, 1863; 472,781 on January 1, 1864; and 439,675 on January 1, 1865 (Clement A. Evans, *Confederate Military History* [Atlanta: Confederate Publishing Co., 1899], VII, 500).

³³ Livermore is quoted with approval by Rhodes: "The number of men in the Confederate army was 1,082, 119" (James Ford Rhodes, *History of the Civil War* [New York: Macmillan Co., 1904], V, 186). Since "the total number of all white males who came within the final limits of military age was probably under 1,150,000" (Chester Wright, *Economic History of the United States* [2d ed. (New York: McGraw-Hill Book Co., 1949)], p. 434), Livermore's estimates must surely be too high.

made workers become more efficient at their jobs, work longer hours, and discover "short cuts" in production. Large numbers of army privates receiving eleven dollars a month deserted to work on their farms back home. Like France during World War I, the Confederacy realized it was overmobilized and sent soldiers home to work in factories; this raised the South's real output. If the conflicting forces just described offset each other, the army's heavy drain on manpower caused a "once and for all" drop in real output,³⁴ a drop felt most seriously during the first two years of the war.

Though the fall in output was largely responsible for the decline in the real value of cash balances during the early years of the war, the rise in velocity caused its continuing decline. Taxing through printing money was as appealing to the Confederate government as it was to the Continental Congress in earlier years of American history and has been to so many governments since that time. Like all people who live through prolonged and rapid price rises, southerners came to realize that the only way to avoid the tax on holding money was to reduce their cash holdings. Some resorted to limited forms of barter and refused to accept cash alone for their products. Others adopted more stable currencies, such as northern greenbacks, or made their notes payable in commodities. Durable goods, land, precious metals, and jewelry were kept as ultimate reserves instead of notes or bank deposits. As velocity increased, prices rose still higher and the real value of cash balances declined.

³⁴ According to General Evans' figures, the number of men in the army stayed at roughly their January, 1863, level. This means the effect of mobilization was to reduce suddenly the number of people in the labor force.

IX

By curtailing foreign trade, the northern blockade compelled the Confederacy to manufacture most of its own war supplies. Undoubtedly, the rapid rise in commodity prices, so bitterly denounced by the people who suffered under it, aided the southern war effort by stimulating the output of war goods, the building of new plants, and the development of industrial processes.

Prices rose much faster than wages in the Confederacy, and southern businessmen made large profits. Describing the period from 1760 to 1800 in London, England, Professor Hamilton writes:

The high level of profits raised large incomes which have supplied practically all the savings in a capitalistic society. As J. M. Keynes has pointed out, savings without investment not only would have proved fruitless, but would have depressed business and thus limited savings. By keeping the normal rate of profits far above the prevailing rate of interest, the lag of wages behind prices stimulated the investment of savings as they took place.³⁵

Businessmen in the Confederacy, like those in England a century earlier, responded to their higher profits by trying to build new equipment, expand their labor force, and produce more goods.

Victor S. Clark, after studying manufacturing in the Confederacy, concluded that the lack of competent metalworkers and machinists was never remedied; "It seems to have been the limiting factor in the production of arms and munitions up to the very close of the conflict."³⁶ The rise in prices had the effect of helping to

³⁵ Earl J. Hamilton, "Profit Inflation and the Industrial Revolution, 1751-1800," in *Enterprise and Secular Change*, ed. Frederic C. Lane and Jelle C. Riemersma (Homewood, Ill.: Richard D. Irwin, Inc., 1953), p. 328.

³⁶ *History of Manufacturers in the United States: 1607-1928* (New York: McGraw-Hill Book Co., 1928), II, 51.

offset the scarcity of labor. Since prices rose much faster than wages, real wages fell. Southern laborers tried to maintain their prewar living standards by working longer hours and holding down more than one job. In many cases wives and children entered the labor force for the first time to supplement the family income. This increase in the labor force reduced the most important "bottleneck" in southern production.

X

To study wage movements in the Confederacy, I took wage quotations from the account-books of various southern firms.³⁷ Since the median is not affected by extreme values, it was the statistic

³⁷ The most fruitful source of quotations was the Tredegar Iron Works. Their account-books have recently been opened to the public and are now available in the Virginia State Library. The pay-roll book for 1863 and 1864 is complete. However, the pay-roll book for 1861-62 was lost or destroyed. Some wage quotations for this earlier period can be gotten from the firm's daily journal. Quotations for foundry and forge workers, pattern-makers, carpenters, blacksmiths, boilermakers, machinists, turners, and fitters are available. The University of North Carolina has the account-book of the Henry Garst Flour and Saw Mill and the John Judge Sock and Yarn Factory. These include quotations for farm hands, butchers, and general labor. In the Moravian Archives at Winston Salem, North Carolina, the account-books of the Fries Cotton and Wool Company are available. Only the total pay roll and the number of people employed are listed. From this source the average take-home pay was recorded. The timebook of the Atlanta, Georgia, arsenal, available at the National Archives in Washington, revealed figures for 1863 and 1864 for guards, machinists, carpenters, cartridge-makers, and superintendents. The accounts of the Central Laboratory of Georgia, also located in the National Archives, give data for 1863, 1864, and 1865 on carpenters, watchmen, overseers, bricklayers, brick-burners, and painters. In the Historical Commission of Columbia, South Carolina, the records for the building of the statehouse are available and reveal the figures for quarrymen, assistant quarrymen, blacksmiths, engineers, watchmen, carpenters, hostlers, architects, and railroad inspectors in 1862-63. The Graham Robinson Iron and Steel Works account-books at the University of Virginia reveal the wages paid to several workers in the mills, not classified by profession, throughout the war.

used as typical of all wages in a trade³⁸ in any given month.³⁹ The first quotation listed in 1861 was taken as the base, and successive monthly medians were expressed as a percentage of this value. For some occupations quotations were not available for 1861. To utilize the quotations that were available for later years, I assumed that during 1861 wages increased in these trades as much as the average increase in all other trades.⁴⁰ The

base.⁴¹ An unweighted average of these relatives was then struck. These values are presented in Table 4 and plotted in Figure 6. They reveal that the average wage increased approximately ten times during the four years of the war, or at a rate of 4.6 per cent a month.

To determine the movement of real wages, the rise in money wages should be deflated by a price index weighted according to workers' expenditures. Unfortunately, no budget studies are currently available for the South during the Civil War.⁴² However, the change in real wages may be approximated by deflating the rise in money wages by a wholesale

TABLE 4
WAGE INDEX FOR THE CONFEDERACY
(January, 1861 = 100)

| MONTH | YEAR | | | | |
|---------------------|------|------|------|------|------|
| | 1861 | 1862 | 1863 | 1864 | 1865 |
| January | 100 | 121 | 201 | 397 | 784 |
| February | 100 | 112 | 207 | 381 | 884 |
| March | 99 | 118 | 212 | 462 | 987 |
| April | 101 | 119 | 237 | 402 | |
| May | 107 | 122 | 233 | 398 | |
| June | 105 | 127 | 241 | 372 | |
| July | 100 | 122 | 263 | 385 | |
| August | 100 | 136 | 296 | 394 | |
| September | 106 | 139 | 305 | 450 | |
| October | 101 | 160 | 341 | 527 | |
| November | 116 | 166 | 371 | 528 | |
| December | 114 | 177 | 349 | 521 | |

first quotation for these occupations in 1862 was therefore given the value of 1.085, a base in 1861 was determined, and the successive monthly quotations were expressed as a percentage of this

³⁸ In the case of pattern-makers the high wage, rather than the median, was used because for the years 1861-62 it was the only quotation available.

³⁹ The mode was rejected because some series were bimodal or trimodal, while others had no mode.

⁴⁰ There were sixteen cases for which figures were available in both 1861 and 1862. These include forgers, pattern-makers, sawmill help, turners, fitters, watchmen, four individuals in the Graham Robinson Mill, foundry help, boilermakers, carpenters, and the help in the Fries Cotton and Wool Company Mill. The average of the first quotation in 1862 to the first quotation in 1861 for these sixteen cases was 1.085.

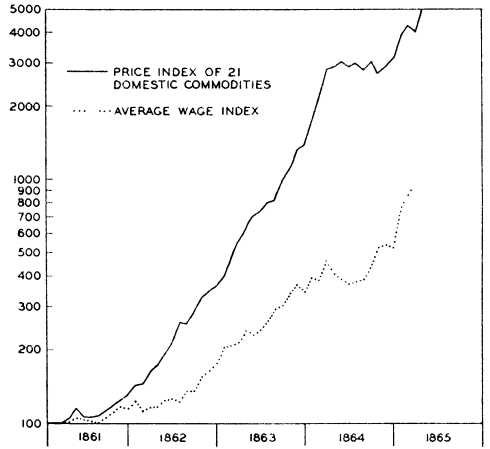


FIG. 6.—Index of prices of twenty-one domestic commodities compared with index of wages. (January, 1861 = 100.)

price index of twenty-one domestic commodities.⁴³

⁴¹ If figures were available only for 1863, the trades were not used.

⁴² The earliest systematic reports for family living in the United States that have been located are for the years 1816-17 and 1835. The next study available is for the 1870's (see Faith M. Williams and Carle C. Zimmerman, *Studies of Family Living in the United States and Other Countries* [U.S. Department of Agriculture Misc. Publication 223 (Washington, D.C.: Government Printing Office, 1935)], p. 7).

⁴³ This index includes corn, hay, rye, wheat, bacon, beef, butter, chickens, flaxseed, cornmeal,

The most serious objection to deflating money wages by a wholesale price index of farm products and textiles is that it overstates the decline in the value of a worker's money wage by between 20 and 40 per cent.⁴⁴ The price index used to deflate money wages, plotted in Figure 6, reveals that wholesale domestic prices rose approximately forty times by March, 1865, or at a rate of 9 per cent a month. If this index overstates the rise in the cost-of-living price index by, say, 30 per cent, the cost of living rose approximately thirty times in the Confederacy. Since money wages rose only ten times during the war, real wages declined to approximately one-third their prewar level.

In addition to money wages, workers received part of their wages in kind,⁴⁵ and this portion was not reduced by the rise in prices. In February, 1865, the

eggs, superfine flour, family flour, extrafine flour, lard, Irish potatoes, sweet potatoes, live turkeys, tallow, and osnaburgs.

As we have seen, the northern blockade curtailed the supply of imported commodities but increased the supply of exported commodities to the home market. It made import prices rise more and export prices rise less than an average of all commodity prices. The prices of farm products and textiles were not directly affected by the blockade. (The supply of wool and cotton, of course, was affected by the blockade. The textile included in my index is osnaburgs, the type of cloth worn by Negroes and manufactured in the South.) The prices of farm products and textiles rose as a result of the increase in the quantity of money and the decrease in real output. By deflating money wages by their average price rise, one approximates the way in which these forces alone affected the value of a worker's income.

⁴⁴ I assume that prices in the South behaved like prices in the North during the Civil War and in the United States during the two world wars. In the Civil War an average of textile and farm prices rose 19 per cent more than the cost-of-living index; in World War I, 21 per cent more; in World War II, 40 per cent more.

⁴⁵ Some workers received part of their wages in kind before 1861, just as some do today. During the Civil War this practice intensified.

Henry Garst Sawmill paid its help ninety dollars and a barrel of flour for a month's labor.⁴⁶ Undoubtedly, some workers increased their take-home pay, but not their rate of real hourly wages, by working longer hours. Others worked night shifts and received about one and a half times the day rate; still others must have supplemented their family incomes by growing food on their own small plots of land or having other members of their family take jobs also.

These various ameliorations were probably not very large. If they were equivalent to a 10 per cent increase in money wages, real wages in the Confederacy had declined to well under 40 per cent of their prewar level by March, 1865. Southern labor complained bitterly that its wages were "totally inadequate to afford us the merest necessities of life—plain food, shelter, fuel, and clothing. We are literally reduced to destitution."⁴⁷

Physical productivity probably declined during the war. More people were employed in a fixed plant. For example, twenty-one people were employed by the Fries Mills in 1861 and forty-eight in December, 1864. Production was constantly interrupted by Confederate agents who impressed raw materials. The Fries Mill smuggled wool through the Union lines to make Confederate uniforms. When agents seized this wool because the import duty had not been paid, the mill was unable to replace it. The mill did not fulfil its government contract and temporarily halted production.⁴⁸ The conscrip-

⁴⁶ University of North Carolina, Southern Historical Collection, "Henry Garst Payroll Book, 1860-1866," p. 30.

⁴⁷ Letter from Taylor to Memminger, October 14, 1863 (Thian [ed.], *op. cit.*, II, 153).

⁴⁸ See Moravian Archives (Winston-Salem, N.C.), "Fries Letter Books" (MSS), 1863.

tion act also prevented steady and continuous production. The manager of a shoe factory in Montgomery, Alabama, reported:

It takes fully one half the time of my clerks and about as much of my own to attend to the detailing men. I no sooner have a man trained and somewhat efficient than he is ordered to report to camp, and then, after considerable delay, I have his services replaced by a new

pened, for example, to some of the furnaces of the Tredegar Mills. These events probably more than offset any increase in productivity caused by patriotically increased endeavor. They reduced the marginal physical product and offset in part the increases in marginal revenue product caused by inflation. They tended to lower wages by causing downward shifts in the demand schedule for labor.

TABLE 5
RATIO OF MEAN SKILLED WAGE TO
MEAN UNSKILLED WAGE

| Date | Ratio | Date | Ratio |
|---------------------|-------|---------------------|-------|
| 1861: | | February | 2.62 |
| January | 3.76 | March | 2.77 |
| February | 4.28 | April | 2.46 |
| March | 3.92 | May | 2.30 |
| April | 4.73 | June | 2.32 |
| May | 4.25 | July | 2.61 |
| June | 3.03 | August | 2.97 |
| July | 4.25 | September | 2.25 |
| August | 3.37 | October | 2.24 |
| September | | November | 1.69 |
| October | 5.30 | December | 1.86 |
| November | | 1864: | |
| December | | January | 2.96 |
| 1862: | | February | 2.23 |
| January | 3.38 | March | 2.21 |
| February | 3.38 | April | 3.15 |
| March | 3.98 | May | 2.57 |
| April | 4.02 | June | 2.84 |
| May | 3.72 | July | 2.81 |
| June | 3.09 | August | 2.59 |
| July | 3.15 | September | 3.21 |
| August | 3.38 | October | 3.21 |
| September | 3.00 | November | 3.05 |
| October | 2.30 | December | 1.39 |
| November | 2.49 | 1865: | |
| December | 2.38 | January | 1.16 |
| 1863: | | February | 3.04 |
| January | 2.91 | March | 3.73 |

XI

Changes in the dispersion of wages about the average monthly wage reveal that the labor force was undergoing a change during the war. As a measure of dispersion I took a ratio of the mean skilled wage to the mean unskilled wage.⁵⁰ These figures are recorded in Table 5. They reveal a downward trend and indicate that the wages of unskilled workers in the South rose faster during the war than the wages of skilled workers. During both world wars and the succeeding inflationary periods there was a similar tendency for the wage spread between occupations to narrow.⁵¹

Even before Fort Sumter was fired upon, the South had a chronic shortage of skilled workers. The great majority of skilled immigrants coming to America during the 1840's and 1850's settled in the North. Free labor has traditionally feared the competition of slave labor, and the long distances between large southern communities limited the extent of the

one and an invalid, in most cases, who is one half the time in the hospital and the other half not able to do much work.⁴⁹

Machinery worn out through normal use was difficult to replace, and occasionally entire factories were destroyed by fire or northern troops. This hap-

⁴⁹ Quoted in Ramsdell, "The Control of Manufacturing by the Confederate Government," *op. cit.*, p. 248.

⁵⁰ I classified the following trades as skilled: engineers, bricklayers, machinists, foremen, boiler-makers, pattern-makers, carpenters, blacksmiths, and the highest figure found in a month for foundry and quarry help. As unskilled trades I classified saw-mill help, butchers, farm help, watchmen, overseers, yarn-and-sock-factory help, isolated individuals in steel mills, and railroad inspectors.

⁵¹ Philip W. Bell, "Cyclical Variations and Trend in Occupational Wage Differentials in American Industry since 1914," *Review of Economics and Statistics*, XXXIII (November, 1951), 331.

market that a skilled worker could serve. During the war the persistent demands of the army reduced the small skilled labor force to such an extent that production was seriously impeded.

In May, 1862, the Quartermaster General wrote the Secretary of War:

The supplies of this department are totally inadequate to fill the requisitions made upon it. It has been formally reported to me today that requisitions representing the complete outfit of 40,000 men are necessarily unfilled. . . . The deficiency has been occasioned in a great measure by the interference of the conscription act with the arrangements of manufacturers with whom contracts have been made. Under its operation they have been deprived of the service of their employees to such an extent that they have been rendered incapable of complying with the contracts made with this department for continued supplies of various articles absolutely essential for issue to the Army.⁵²

A mill in Selma, Alabama, that would roll "iron enough for all our vessels and cast guns for all the batteries"⁵³ was scheduled for completion in the fall of 1863. In May, 1864, it was still unfinished for want of skilled mechanics. In May, 1864, it was reported that in Charlotte, North Carolina, "a number of our most important tools are idle a large portion of the time for want of mechanics to work them, and some of these tools, the steam-hammer for instance, are the only tools of their class in the Confederacy."⁵⁴ The commander of the Naval Ordnance Works at Atlanta, Georgia, complained that he was "unable to have forged the wrought iron bolts for the Brooke gun for

the want of blacksmiths," and that "nearly all of the lathes are idle for want of hands."⁵⁵

The *Richmond Enquirer* indignantly pointed out:

Nearly the whole operation of this extensive establishment, the shoe bureau like the post office, is stopped now because of the absence of the operatives at the front, where, so far, they have done no work save eating up a certain quantity of bacon, pears, and cornmeal. . . . We understand there is an abundance of leather here, and if the shoemakers were not absent, many thousands of pairs of shoes might now be on hand to supply the present and prospective wants. Men in an army cannot march long without shoes.⁵⁶

One week later the *Enquirer* reported that "considerable trouble" was caused in cotton and woolen mills by the conscripting of a few skilled hands. "Not only were women and children stopped from work, but the Government orders for cotton and cloth had to go unfilled."⁵⁷

The shortage of skilled labor induced firms to raid their competitors' labor force. Banton Duncan, who received a contract from the Treasury Department to print Confederate notes, wrote Secretary Memminger that "Hoyer and Ludwig [another printing firm] has already seduced away two of my journeymen."⁵⁸ Two days later the Secretary received a letter from a different printing firm stating that "Mr. Duncan has planned the ruin of Mr. Ball and myself. He has already seduced away our workmen; arson has been tried to destroy our premises. Every other effort failing, he tries to scandalize my past life."⁵⁹ Letter fol-

⁵² Letter from A. C. Meyers to H. G. Randolph, May 23, 1863 (U.S. War Department, *The War of the Rebellion*, Series IV [Washington, D.C.: Government Printing Office, 1880-1901], I, 1127).

⁵³ Letter from C. Jones to J. M. Brooke (*ibid.*, III, 523).

⁵⁴ Letter from H. Ashton Ramsay, chief engineer, to Commander J. M. Brooke, chief, Bureau of Ordnance and Hydrography, May 5, 1864 (*ibid.*, p. 521).

⁵⁵ Letter from D. M. McCorkle to J. M. Brooke (*ibid.*, p. 522).

⁵⁶ June 16, 1864.

⁵⁷ June 21, 1864.

⁵⁸ Letter from Duncan to Memminger, October 21, 1862 (Thian [ed.], *op. cit.*, I, 656).

⁵⁹ Letter from E. Ketzinger to Memminger, October 23, 1862 (*ibid.*, p. 657).

lowed letter, until the harassed Secretary ended the raiding of labor among his printers by making it official Treasury policy to cancel the contract of "any contractor, who by offers of higher wages, or in any way incites any person employed by any contractor to leave such service, or who employs anyone in the service of another contractor, even after he may have been discharged, without his written consent."⁶⁰

The skilled workers of the South were essential to production and accounted for only a small fraction of a firm's total pay roll. Under these conditions they could, and did, successfully press for large absolute wage increases.

To maintain output in the face of the large drain of manpower into the army and the shortage of skilled workers, new sources of labor had to be found. Women and children had to be attracted into the labor force and slaves redirected from the farms to factories.

Quartermaster supply depots were located in the larger towns. Many of the women in those areas had never worked in factories before, yet Ramsdell relates that "thousands of women and girls sought employment in the clothing shops."⁶¹ Some women took jobs because it was now patriotic to work for "The Cause." Some wanted to augment the family income and took advantage of the ease of entry into the labor force. A large number, however, must have been attracted by the relatively high wages, for the wages of the unskilled workers in the South during the Civil War rose more than those of skilled workers already in the labor force.

Before the war, slaves were not widely

⁶⁰ Correspondence of the Treasury, April 23, 1863 (*ibid.*, III, 444).

⁶¹ "The Control of Manufacturing by the Confederate Government," *op. cit.*, p. 223.

used in manufacturing.⁶² Rather, it was the growing of cotton more than anything else that led to the spread of slavery through the South. Typically, all forced labor has required costly supervision to offset its carelessness, wasteful idling, and wilful destruction. Cotton-growing, however, had several characteristics that made it adaptable to slave labor.⁶³

Many slaves, of course, were highly skilled, and some of the more famous southern buildings, such as the old Vicksburg Courthouse, were built by slaves. The wages of Negro and white bricklayers working on the Statehouse of South Carolina reflect this skill: Negro help systematically received 25 cents less per day than white labor. In May, 1863, white labor received \$3.25 per day and Negroes \$3.00; in February, 1864, whites received \$5.00 and Negroes \$4.75; in July, 1864, whites received \$6.00 and Negroes \$5.75.⁶⁴ Since the employment of Negro help cost more than that of white help (because of wages for guards and other expenses) and since the wages of slave and free labor, percentage-wise, came closer together as war continued, these quotations suggest that slaves were

⁶² Ulrich B. Phillips, *American Negro Slavery* (New York: D. Appleton-Century Co., 1918), p. 380.

⁶³ The work involved was simple and routine in character, since only plain tools were used; supervision was relatively easy because more labor was used per acre than for many other crops; at the peak of the labor demand in picking, practically the whole slave family, young and old, could be employed; though the methods employed exhausted the soil and so necessitated either a more careful and varied agriculture, for which slave labor was less adapted, or else resort to new fertile land, this latter alternative was always available, for the rich alluvial soil of the Mississippi Valley was more fertile than that of the older cotton-growing states, and the limit of expansion had not been reached in 1860 (Wright, *op. cit.*, p. 303).

⁶⁴ South Carolina State Archives, account-book for the South Carolina Statehouse.

more skilled than the whites remaining at home.

Before the war, slaveowners generally preferred to keep their slaves on their own plantations. Slaves were not hired out to factories, "because high wages were not adequate compensation for the liability to contagious and other diseases, demoralization, and the checking of the birth rate caused by the separation of husbands and wives."⁶⁵ The firms, in turn, preferred free labor because the factories were forced to assume responsibility for a slave's accident.⁶⁶ Southern management also recognized that white workers did not work well side by side with slaves. For example, in 1838,⁶⁷ white laborers had protested the hiring of Negro carpenters.⁶⁸

The war may not have changed personal attitudes, but it did alter the established pattern of slave usage. Cotton production declined, and the demand for slaves on plantations fell off correspondingly. Plantation owners and their sons, as well as overseers, were in the army, and the women left at home could not organize or direct their field hands. Firms needed labor and advertised widely for Negro help. "The Macon Armory advertised for 100; the Tredegar Iron Works want 1000; the Naval Gun Foundry and Ordnance Works at Selma wanted 200; the salt works in Clarke

County, Alabama, advertised for 500. Almost every industry was competing for Negro labor."⁶⁹ Attracted by relatively high returns, more and more slaves were placed on the labor market and were rented to mills, factories, and railroads.

XII

Most southerners who suffered through this inflation believed it was caused by speculators or government impressment agents. Consequently, they tried to combat inflation largely by denouncing these groups, prohibiting goods from crossing state lines, and instituting price control. Southerners confused the forces that actually instigated inflation—the increase in the stock of money and the decrease in real output—with the process through which these forces operated. They did not concentrate on the basic causes of inflation, and they were unable to formulate a program of reform that might have mitigated some of their hardships.

"The band of harpies preying upon the vitals of the Confederacy,"⁷⁰ the speculators and extortioners, was the most widely alleged cause of the inflation. Governor Vance of North Carolina found that, because of extortion and speculation, "it will be impossible to clothe or shoe our troops this winter."⁷¹ One writer in the *Wilmington Journal* claimed that "the speculators have caused the present high prices, and they are determined to make money even if one-half of the people starve."⁷² This view was also presented to government officials. Secretary Memminger was told that "the high prices are owing to the wicked spirit that

⁶⁵ Phillips, *op. cit.*, p. 380.

⁶⁶ *Ibid.*, p. 379.

⁶⁷ J. R. Commons and Ulrich B. Phillips (eds.), *Documentary History of American Industrial Society* (Cleveland: A. H. Clark Co., 1910–11), II, 360.

⁶⁸ In 1858 Frederick L. Olmsted stated that, in a mining camp, a group of twenty or thirty white laborers came up to a newly hired white Englishman and told him "they would allow him 15 minutes to get out of sight, and if they ever saw him in those parts again, they would give him hell." The reason given to Olmsted for this action was that the Englishman was "too free-like with the niggers and they thought he'd make 'em think too much of themselves" (*ibid.*, p. 170).

⁶⁹ Coulter, *op. cit.*, p. 258.

⁷⁰ *Wilmington Journal*, October 9, 1862.

⁷¹ Letter from Z. B. Vance to Weldon N. Edwards, September 18, 1862 (U.S. War Department, *op. cit.*, I, 85).

⁷² July 6, 1862.

infests so many persons to make money upon the downfall of others, overbidding, overreaching, when we are struggling for our most sacred liberty and independence."⁷³ Two days later another person wrote the Secretary: "The cause of the high prices lies in the bull and bear games carried on by unprincipled speculators who would sacrifice the whole of the South to enrich themselves."⁷⁴

The number of speculators was reputed to be legion.⁷⁵ However, a critic of this position pointed out that everyone with products to sell—farmers, merchants, and manufacturers alike—was accused of being a speculator.⁷⁶ Another critic suggested that blockade-runners could not justly be called extortioners. "Their operations certainly bring goods into the country and thus tend to relieve prices—they certainly cannot increase scarcity."⁷⁷ But these calm voices went unheard; instead, southerners enjoyed the vicarious thrill of concocting suitable punishments for speculators. One could think of no worse punishment for a speculator than placing him "in the ranks of the army and make him live on half rations of raw, stinking, beef, and black bread."⁷⁸ The less imaginative felt that the speculators simply "ought to be hung until dead by the side of traitors and Tories."⁷⁹

⁷³ Letter from Joseph Newman to Memminger, March 20, 1863 (Thian [ed.], *op. cit.*, II, 57).

⁷⁴ Letter from George F. Gerding to Memminger, March 22, 1863 (*ibid.*, p. 62).

⁷⁵ "On Thursday last, our town was full to overflowing with the merchants and speculators, Jews and Gentiles, men from East and West, North and South, who came to attend the advertised auction sale of goods" (*Wilmington Journal*, August 30, 1862).

⁷⁶ *Ibid.*, July 10, 1863.

⁷⁷ *Ibid.*, September 29, 1864.

⁷⁸ *Ibid.*, July 6, 1862.

⁷⁹ November 20, 1862.

Poor transportation facilities,⁸⁰ droughts,⁸¹ Union armies,⁸² and the blockade⁸³ were also accused of causing the inflation. However, these accusations were neither as bitter nor as frequent as those levied against the agents of the Confederate government who were in daily contact with the public. Except for speculators, these agents were held responsible for high prices more frequently than any other single group or event.

The military authorities, for security reasons, were stringent in granting passports to enter and leave cities. As a result, it was reported that, in Wilmington, "no carts came in with produce. Nothing is brought to market. Nobody comes in to buy or sell."⁸⁴ The same events were reported in Richmond.⁸⁵

The specific government agents most despised were the impressment officers.

[If] prices are inconveniently high for poor folks . . . it must be expected so long as the necessities of life are impressed on their way to

⁸⁰ January 4, 1862; *Richmond Enquirer*, March 20, 1863; *Richmond Whig*, June 13, 1864.

⁸¹ Letter from Ruffin to Northrop, November 3, 1862 (U.S. War Department, II, 159); *Richmond Whig*, August 15, 1864.

⁸² *Richmond Whig*, June 13, 1864; *Wilmington Journal*, June 14, 1862.

⁸³ *Wilmington Journal*, March 31, 1864; *Richmond Whig*, August 23, 1864.

⁸⁴ *Wilmington Journal*, January 24, 1863.

⁸⁵ "The owners of a number of country carts that used to bring supplies to this market have of late ceased to come, though the markets are destitute of vegetables common to the season. As many carts as formerly start for the city, but many now stop before reaching their destination, haul up at some convenient place by the roadside, sell their goods and put for home instantly. The market men allege, with show of justice, we presume, that when they come into the city, they are bothered half out of their wits to get out again. When applying for a passport, they have to produce somebody who knows them, as a voucher, a thing not always easy to do. Then, again they say they are stopped on every corner of the street and subjected to cross questioning by the military guard whose importunities are not always to be resisted" (*Richmond Enquirer*, June 15, 1864).

market by Government agents, who are too lazy to go through the country in search of supplies. Half of the troubles of the army and nearly all of the troubles of the people are due to the existence of the pestiferous commissaries.⁸⁶

Part of this thorough condemnation came because large quantities of impressed goods were never used. They had rotted and decayed.⁸⁷ Part also came because commodities were impressed largely from the immediate vicinity of the stationed army.⁸⁸ The decreased supply of commodities raised prices to civilians in the area. When it was rumored that impressment officers were near Richmond in 1864, "the people having become alarmed by the interferences of government agents with the sources of supply, cleared the market of flour and produced a heavy advance in the price of that article."⁸⁹

In direct response to the public protests of high prices, "caused" by speculators, extortioners, and impressment agents, the government enacted price control.⁹⁰ Secretary of the Treasury

George Trenholm, addressing the Commissioners of Prices, said: "In the function conferred upon you by Congress . . . resides . . . the only power capable of interposing a check on the progress of depreciation [of the currency]."⁹¹

The price commissioners were constantly harassed by the public to lower their ceiling prices.⁹² Secretary Trenholm told Governor Bonham of South Carolina that, when he arrived in Richmond, he found

the commissioners of prices had fixed the schedule rate of wheat and corn at \$30 and \$24 per bushel, respectively, for the months of August and September. . . . Public meetings were held . . . and resolutions adopted patriotically insisting upon a reduction of the standard rates, and their establishment upon a basis sufficiently low to inspire confidence in the currency. The result was that the commissioners reassembled and reduced the schedule prices to \$7.50 for wheat for the month of August and \$5 for the month of September. A wiser and more patriotic course was never pursued by any people.⁹³

The price ceilings imposed by the Confederate government became more and

⁸⁶ *Richmond Whig*, October 21, 1864. The *Richmond Whig* of May 2, 1864, reflected public sentiment in its short news item on the impressment of horses: "The horse impressment business seems to have died out. The long legged, white hatted men, with their negroes and bailers, were nowhere to be seen on Saturday. The number of animals secured by impressment in Richmond is said to have been ridiculously small—so many had to be liberated as belonging to Government officers. . . . An attempt was made to seize the President's horse while standing with his carriage in front of his office."

⁸⁷ "Last year the country was filled with Government agents impressing the wheat and grinding it before it was dry. The result was thousands of bushels were either bulked up or ground damp and destroyed. The agents were warned of the result, but they were too wise to take advice. Most of them were impudent young men who ought to have been in the ranks. They knew nothing about business and were insulting wherever they went" (*ibid.*, July 19, 1864).

⁸⁸ *Richmond Enquirer*, March 13, 1863. (This newspaper is misdated March 13, 1862.)

⁸⁹ *Richmond Whig*, September 2, 1864.

⁹⁰ Ramsdell has shown that, by controlling the number of conscripts allowed to work in specific factories, the government was able to influence the price of the commodities produced. Early in the war this control extended only to the goods the government purchased for its own use. However, by the end of the war, Ramsdell concluded that the army attempted to regulate the price of commodities going to the consumer as well ("Control of Manufacturing by the Confederate Government," *op. cit.*, p. 239).

⁹¹ Speech delivered in Montgomery, Alabama, September 3, 1864; reported in the *Richmond Whig*, October 12, 1864.

⁹² "What do the Confederate Commissioners mean by fixing the prices of wheat and corn at the figures they have? . . . Is it the intention of the Commissioners purposely to increase the price of provisions? . . . It is well known that producers will always demand higher prices from private purchasers than that fixed by schedule, and if the Government attempts to keep up with and outbid the market in this way, by the expiration of the year, prices will have reached a point beyond that which imagination can follow them" (*ibid.*, July 19, 1864).

⁹³ Letter from Trenholm to Governor Bonham, August 5, 1864 (Thian [ed.], *op. cit.*, IV, 378).

more unrealistic as time passed. In June, 1863, the ceiling prices were, on the average, only 66 per cent of the going market price. By July, 1864, the ceiling prices were only 53.3 per cent, and in October, 1864, only 37.3 per cent of the true market price. The extent to which legal ceilings were flaunted by the public is indicated by the large numbers of newspapers that regularly published a commodity's going market price and its legal ceiling price side by side.

Despite Secretary Trenholm's belief that low price ceilings were essential for the success of the government, the commissioners realistically raised their ceilings when it was urgent that the army procure commodities.⁹⁴ When this procedure took too long, the army simply ignored the ceiling rates and paid the full market price.⁹⁵

⁹⁴ "Having readopted the schedules for May and June last, in accordance with the clearly manifested wishes of the people, we have thought it advisable and proper to stimulate the sales and delivery of small grain, etc. now so much needed as to be indispensable by advancing the price of wheat, flour, corn, meat, oats, and hay delivered in the month of August" ("Report of the Price Commissioners," in the *Richmond Enquirer*, August 2, 1864).

⁹⁵ Letter from the Commissioner of Prices in Virginia to Secretary of War Seddon, August 1, 1864, reprinted in the *Richmond Enquirer*, August 2, 1864.

The controls the South imposed were *ad hoc* measures designed to placate an outraged citizenry. Aggregate spending was not effectively curbed, and every expectation of higher prices was realized in fact. Under these conditions the Confederate controls completely collapsed.

The people of the South did not focus their attention on the basic cause of the rise in prices that plagued their country. Like the people of other countries during every age, they attempted to correct only the abuses of high prices. Had southerners attacked the most basic cause—the increase in the stock of money per unit of real income—with more vigor and understanding, they might have mitigated some of their hardships.

ERRATUM

An error occurred in Figure 1 on page 519 of my article "The Monetary and Fiscal Programs of the Confederate Government, 1861–65" in the December issue of this *Journal*. The price of 8 per cent bonds was plotted on a logarithmic scale labeled as though it were arithmetic when it should have been plotted on an arithmetic scale. The highest price at which these bonds sold was \$200.

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