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IX

DEBT-PONAGE AS A CAUSE OF ECONOMIC STAGNATION
IN THE DEEP SOUTH FOLLOWING
THE CIVIL WAR

**Institute of Business and
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DEBT PEONAGE AS A CAUSE OF ECONOMIC STAGNATION
IN THE DEEP SOUTH FOLLOWING THE CIVIL WAR*

by

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To historians and economists considering the American South between 1865 and 1900, the economic progress of the United States poses an interesting paradox. The nation's economy as a whole, grew more rapidly in terms of per capita output of goods and services in this period than any other in its history. Yet, the Southern states suffered a drastic fall in relative income at the outset of this half century and failed to gain any appreciable ground until after 1910. By virtually any measure of economic development, the South lagged far behind the rest of the nation until World War I. The paradox is furthered by the fact that despite the stagnation of the Southern economy, contemporary writers such as Henry Grady [24] and Philip Bruce [9] were proudly describing the rise of a "New South" based on agricultural recovery and industrial expansion. While it is true that the half century following the Civil War saw many changes in Southern life, the prosperity of the "New South" was, in retrospect an illusion for the vast bulk of Southern income-earners.

In Table 1 we examine the per capita income data for the South relative to other regions from 1840 to 1920. These figures reveal that up to 1860 the South was growing more rapidly than the North. Moreover, if we ignore the welfare of the slaves, it can be seen that the free population of the slave states actually had a level of per capita income slightly above the national average in 1860. The Table also indicates the magnitude of the catastrophic fall in income after the War. Fifteen years after Appomattox, the per capita income in the South was only one half of the national average. This is surely surprising. After all, the resources upon which the South's ante-bellum

Table 1. Relative per capita income by regions; 1840-1920

Region ^b	1840 ^a		1860 ^a		1880	1900	1920
	Total	Free	Total	Free			
National Average	100	100	100	100	100	100	100
SOUTH	77	96	80	104	51	51	62
South Atlantic	69	88	88	86	45	45	59
East South Central	72	84	70	86	51	49	52
West South Central	157	218	144	190	60	61	72
NORTH	114	100	110	99	(na)	(na)	(na)
North East	134	119	141	127	141	137	132
North Central	68	61	70	63	90	97	87
WEST	--	--	--	--	190	163	122

Notes:

^a"Total" per capita income includes slaves as income earners. "Free" per capita income excludes slaves, allowing a \$20 "maintenance cost" for slaves as an intermediate good.

^bThe regions are as follows:

South Atlantic: Florida, Georgia, North Carolina, South Carolina, Virginia, and West Virginia.

East South Central: Alabama, Kentucky, Mississippi, and Tennessee.

West South Central: Arkansas, Louisiana, Oklahoma (in 1900 and 1920) and Texas.

North East: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, Delaware, Maryland, New Jersey, New York, and Pennsylvania.

North Central: Illinois, Indiana, Michigan, Ohio, Wisconsin, Iowa, Kansas, Missouri, Minnesota, Nebraska, North Dakota, and South Dakota.

West: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming, California, Oregon, and Washington.

Source: The income estimates were originally constructed by Easterlin [18]. The data presented here are based on his figures and are taken from Engerman [25]. For 1840 and 1860 Table 2, following p. 7; for 1880, 1900 and 1912 Table 1, following p. 2.

prosperity was based remained largely intact. Cotton farming had never required much capital, and neither the amount of land nor the size of the labor force were reduced by the War. Under such circumstances, fifteen years seems ample time to recover from the physical disruption of the War.

An even more surprising fact illustrated by the relative income data, is that after an additional twenty-nine years, the South's relative position had not improved. Bruce and Grady pointed to the increasing prosperity of Southerners as evidence of the rise of a "New South". In fact, the relative income data demonstrate that the South's economy grew at least as rapidly as the Nation's between 1880 and 1900. Nevertheless, if the disruption and physical destruction produced by the War were the only reason for the low level of income in 1880, we would expect the South's economy to have grown much more rapidly than the North's thereafter. Surely, rapid economic recovery following wartime destruction has been the pattern in developed economies.

The experience of the Southern economy after 1865 differed from that of the North and West in another respect as well. The last half of the nineteenth century was a period of rapid industrialization and urbanization in the North. Yet throughout the period, the South remained as it had been in 1865, essentially a rural, agricultural economy. This point is illustrated in Table 2 by the proportion of workers engaged in agriculture and in Table 3 by the percentage of the total population living in towns and cities. In both of these tables, the South is compared with the North and West, and in both instances the gap between

Table 2. Percentage of the population in urban areas, by regions of the United States; 1870 to 1910.

	1870	1880	1890	1900	1910
Five Cotton States ^a	10.3	9.6	12.7	14.6	18.9
Eleven former Confederate States ^b	8.6	8.7	12.8	15.9	19.8
Fourteen North-Eastern States ^c	34.6	40.6	49.8	64.6	63.9
Eighteen Western States ^d	20.3	21.0	29.1	32.2	31.5
The United States ^e	25.7	28.2	35.1	39.7	45.7

Notes:

^aSouth Carolina, Georgia, Alabama, Mississippi, and Louisiana.

^bIn addition to those states listed in note a the Confederacy included: Virginia, North Carolina, Florida, Tennessee, Arkansas, and Texas.

^cMaine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Indiana, Illinois, Michigan, and Wisconsin.

^dMinnesota, Iowa, Missouri, Nebraska, Kansas, Montana, Colorado, New Mexico, Arizona, Nevada, Oregon, and California for 1870-1910; North and South Dakota, Wyoming and Washington for 1880-1910; Idaho for 1900-1910.

^eIn addition to those listed in notes a, b, c, and d, the total includes Delaware, Maryland, District of Columbia, West Virginia, and Kentucky.

Sources: Everett S. Lee, "Migration Estimates" [37a] in Kuznets and Thomas [37] Vol. I, Table P-4A, p. 349. Table P-4B, p. 353. The data are based on U.S. Census figures with minor adjustments made to the published data for 1890, 1900, and 1910 so that it would correspond to the 1940 Census definition of an urban place. Data for 1870 was estimated by Lee for all towns between 2500 and 2999 and data for 1880 was estimated for towns with population between 2500 and 3999. See Lee [37a], pp. 96-98 for details of the estimating procedures.

Table 3. Agricultural workers as a percentage of the total work force, by regions of the United States: 1870 to 1910

Regions ^a	1870	1880	1890	1900	1910
Five Cotton States	78.6	79.6	71.1	70.0	65.3
Eleven former Confederate States	76.4	76.6	71.5	66.5	60.7
Fourteen North-Eastern States	39.1	34.1	26.4	22.2	15.8
Eighteen Western States	53.4	52.4	44.7	43.5	33.5
The United States	51.3	49.4	40.6	38.8	32.5

Notes:

^aFor definitions of regions, see Table 2.

Source: Anne R. Miller and Carol P. Brainard. "Labor Force Estimates" [40], in Kuznets and Thomas [37] Vol. II, Table L-4, p. 609, and p.621.

the South and these other regions was not only large but it was actually widening.

A gap between the South and the balance of the nation was also pronounced in education. Our most reliable index on the formation of human capital in this period is probably the data on illiteracy published in the population censuses. Table 4 presents this data for the South, the North, and the West for the census dates: 1870 through 1910. Illiteracy in the South -- especially in the five cotton States -- was much greater than in any other region of the nation. Table 5 demonstrates that illiteracy was more prevalent among those engaged in agricultural occupations than the population generally. On the basis of the evidence in Tables 4 and 5, it is reasonable to conclude that at the outset of Reconstruction, the rate of illiteracy among rural Blacks probably exceeded ninety percent in the deep South. ¹

It was undoubtedly the backwardness of Southern agriculture which was at the root of the South's economic problems. Before the Civil War, increasing productivity in the production of staple crops had spearheaded the growth of Southern income. However, after the war, agricultural productivity in the South did not keep pace with other

¹The extremely high levels of illiteracy in the rural South unquestionably retarded economic development in that region relative to the rest of the nation. Southern illiteracy was in large measure a legacy of the slave era, when education of slaves was discouraged and in many areas prohibited. Over the fifty years following the Civil War this differential between native Whites and Blacks in the South declined along with the general level of illiteracy. Whether or not it could have fallen more rapidly is an issue beyond the scope of the present paper. Nevertheless, we believe that the inability or unwillingness to provide a greater amount of education was as much a result of low income levels as their cause. Given the high illiteracy rates at the outset of the period, it seems sensible to treat the problem of inadequate education as independent of the forces we discuss below.

Table 4. The rate of illiteracy by regions and race: 1870-1910

	Percentage of population ten years of age and over recorded as unable to write			
	1870	1880	1890	1910
Total Population:				
Five Cotton States ^a	51.8	51.3	41.9	33.7
Eleven former Confederate States ^b	48.5	44.6	33.7	26.4
Fourteen North-Eastern States ^c	7.8	6.2	6.0	5.2
Eighteen Western States ^d	3.5	8.7	6.4	4.8
The United States ^e	20.0	17.0	13.3	10.7
Colored Population^f:				
Five Cotton States ^a	87.2	79.0	66.5	54.1
Eleven former Confederate States ^b	86.3	77.1	61.8	49.3
Fourteen North-Eastern States ^c	34.2	27.5	24.4	16.8
Eighteen Western States ^d	46.3	42.1	39.3	35.4
The United States ^e	79.9	70.0	56.3	44.6
Native White:				
Five Cotton States ^a	--	21.9	17.0	13.1
Eleven former Confederate States ^b	--	22.7	15.9	11.8
Fourteen North-Eastern States ^c	--	3.6	2.8	2.0
Eighteen Western States ^d	--	6.4	3.7	2.4
The United States ^e	--	8.7	6.2	4.6

Notes:

^aSouth Carolina, Georgia, Alabama, Mississippi, and Louisiana.

^bIn addition to those states listed in note ^a the Confederacy included: Virginia, North Carolina, Florida, Tennessee, Arkansas, and Texas.

^cMaine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Indiana, Illinois, Michigan and Wisconsin.

^dMinnesota, Iowa, Missouri, Dakota Territory (1870-1880), North Dakota (1890-1910), South Dakota (1890-1910), Nebraska, Kansas, Montana, Wyoming, Colorado, New Mexico, Arizona, Nevada, Idaho, Washington, Oregon, and California.

^eIn addition to those listed in notes a, b, c, and d, the total includes Delaware, Maryland, District of Columbia, West Virginia, Kentucky, Indian Territory (1900), Oklahoma (1890-1910) and persons in the military and naval service (including civilian employees) stationed abroad and not credited to any region (1900 only).

^fIn addition to the Negroes the "Colored" population includes in all years American Indians, Chinese, Japanese, Filipino, Hindu, Korean, and all other "non-White" races. Mexican-Americans were included in all years in the White population.

Sources: 1870: United States Census Office, *Statistics of the Population ... June 1, 1870*, [73], Volume I, pp. 396-7 and Volume II, pp. 560 and 662-663.

1880-1900: United States Census Office, *Twelfth Census of the United States ... 1900, Population*, [76], Volume I, Pt. II, pp. c-cv.

1910: United States, Bureau of the Census, *Thirteenth Census ... 1910 Population* [74], Volume I, pp. 1203-1205, 1230.

Table 5. Illiteracy among those engaged in agricultural occupations -- 1890.

Region ^a	Percentage of the population ten years of age and over employed in agriculture, fisheries and mining who were recorded as unable to write
Five Cotton States	54.2
Eleven former Confederate States	44.9
Fourteen North-Eastern States	7.8
Eighteen Western States	7.9
The United States	23.3

Note:

^aFor the definition of each region see notes a through d to Table 4.

Source: United States Census Office, *Report on Population ... 1890* [68a], Volume I, Part II, pp. 302 and 432.

regions. In Table 6 agricultural income per worker in the South is compared with the rest of the country. Not only was agricultural income substantially below the national norm in 1880; but in all three states the relative productivity fell during the following two decades. The implication is that non-agricultural incomes in the South were rising more rapidly than the national average, but that the relative decline of agricultural productivity, coupled with the dominance of agriculture in the Southern economy, produced the aggregate results illustrated by Table 1.

The stagnation of Southern agriculture has received ample attention in the discussions of Southern development after the Civil War. The typical historical analysis has focussed upon a number of important phenomena: the rapid shift into tenant farming; the continuing fragmentation of farms into increasingly smaller units; and the development of a monopolistic and inefficient credit system which fostered a form of "debt-peonage". Commentators have tended to lump these economic factors together, and discuss them as part of the more general social and political issues surrounding reconstruction.² Seldom has there been an attempt to analyze the relative importance of each factor.

The familiar historical narrative begins by discussing the break-up

²The following brief caricature of historical treatments of Southern growth is intended neither as an exhaustive summary of the literature nor as a straw man to be torn apart. Although the analysis has gone through substantial revisions, the emphasis has remained virtually unchanged from the early works of Grady [24], Hammond [28], and Otken [43], down to the more recent discussions by Shannon [59], Woodman [88], Stamp [64], and Salutos [55].

Table 6. Agricultural service income per worker in the South: 1880 and 1900.

	1880		1900		Percentage Change (1880 to 1900)
	Income per Worker (1929 dollars)	Relative Index of Income per Worker (U.S. = 100)	Income per Worker (1929 dollars)	Relative Index of Income per Worker (U.S. = 100)	
Five Cotton States:					
South Carolina	217	55	232	50	16.9
Florida	241	61	257	55	16.6
Alabama	233	59	232	50	0
Mississippi	300	76	273	58	9.0
Louisiana	295	75	312	67	5.8
Balance of the Former Confederacy:					
Virginia	244	62	324	69	32.8
North Carolina	230	58	249	53	8.3
Florida	194	49	277	59	42.8
Tennessee	288	73	275	59	- 4.5
Arkansas	330	84	283	61	-14.2
Texas	277	70	466	100	68.2
United States	394	100	467	100	18.5

Source: Richard A. Easterlin, "Regional Growth of Income: Long Term Tendencies", [19], in Kuznets and Thomas [37], Volume II.

of Southern plantations after the defeat of the Confederacy into small farms operated by freedmen and poor whites. A new form of tenancy -- sharecropping -- arose in this period as means of employing and controlling the Negro. This arrangement was adopted despite the fact it carried with it the insecurity of tenancy and the economic inefficiencies of small farms. Moreover, according to this traditional view, sharecropping allowed the exploitation of the small farmer through the development of a monopolistic financial structure dominated by the local merchant. Unable to obtain alternative sources of credit for supplies he needed, the small farmer was forced to pledge his future crop as a lien against credit advanced for the growing season. The crop lien bound the farmer to the merchant and restricted his options to buy elsewhere or dispose of his crop in the most advantageous manner. Through use of his monopoly power, the merchant was able to insist that the farmer concentrate on the production of cotton at the sacrifice of food for home consumption, thereby forcing the farmer to buy his provisions from the merchant. The credit prices charged for these supplies were exorbitant, reflecting not only the local merchant's inefficiency, but his exploitative powers as sole source of rural credit.

Fred Shannon has summarized the effects of this combination of tenancy and credit monopoly in a characteristically vivid indictment of the entire structure of Southern Agriculture:

The abuses to which this system could lead were plentiful and sometimes ingenious. It grew worse as landlord and merchant ultimately and almost universally became the same individual. The weighting of prices, coupled with intricate bookkeeping, could show a debt to the store at the close of each year, if the laborer were industrious enough that a continuation of his

services was desired. Again the books could be made to balance exactly for the more shiftless cropper who was to be asked to move on. The workers were often perplexed at this magic, but were generally not sufficiently quick at ciphering to keep pace with the nimble-tongued book-keeper. Besides this, the person who persisted in demanding too close a check could easily be branded a troublemaker and neighborhood nuisance, and run out of the county by an obliging deputy sheriff ([59], p. 92-93)

Such a story is oversimplified, and perhaps exaggerates the tenant's plight. However, it does bring out some of the major factors which lie behind the backwardness of Southern Agriculture. The present paper is an attempt to untangle some of the issues which have become intermingled in this traditional view of the Southern farmer's difficulty. We begin with the hypothesis that the major economic explanation for Southern backwardness was the failure to develop an efficient capital market. While we can not as yet substantiate a claim that tenancy and small farms did not impair agricultural efficiency, we present an argument in Section I that, in the absence of problems of credit, the emergence of small tenant farms need not have been an impediment to efficient agricultural production.

I.

There is little question that the introduction of tenancy into Southern farming after 1865 represented a sharp deviation from past trends. Before the Civil War most Southern farms were operated by owners or their managers. The scarcity of references to renting or sharecropping before the War has generally been used as evidence of

but

their absence.³ The only direct evidence has been developed by Owsley ([44], [45]) and others ([13], [14], [87]) who have used the original manuscripts of the Population Census to recover data on real-estate ownership which can be used to estimate the percentage of agricultural families who owned real estate. Despite several imperfections which produce an underestimate of owner-operated farms, the statistics presented by these authors are uniformly high; generally in the neighborhood of eighty percent.⁴ In contrast, barely half of all farms in 1880 were operated by their owners, and better than a quarter of the farms employed a new form of tenure: sharecropping.

Table 7 displays the distribution of farms by the form of tenure in the eleven former Confederate states from 1880 through 1910. The Table also presents the same data for the five major cotton producing states (South Carolina, Georgia, Alabama, Mississippi, and Louisiana). As can be seen, sharecropping was more common in 1880 than renting, and these two forms of tenancy combined to account for nearly half the farms in the deep South. This proportion increased steadily over the next several decades to the point where 63 percent of the farms in 1910 were operated by tenants.

³For example, Gray [25], pp. 646-647.

⁴Owsley [44], Chapter 5; Owsley and Owsley [45]; Weaver [87], pp. 63-67; Coles [13]; and Clark [14], p. 28. For an extensive discussion of the imperfections in the approach followed by these authors, see Linden [38]. Note that the biases inherent in the procedure which Linden discusses tend to underestimate the percentage of owner-operated farms.

Table 7. The distribution of farms by form of tenure; 1880 - 1910

	1880		1890		1900		1910	
	Number of Farms (In thousands)	Percentage of All Farms	Number of Farms (In thousands)	Percentage of All Farms	Number of Farms (In thousands)	Percentage of All Farms	Number of Farms (In thousands)	Percentage of All Farms
Five Cotton States ^a :								
OWNERS	283.8	54.8	318.6	48.6	376.6	40.1	416.7	37.0
RENTERS	87.5	16.9	142.4	21.7	289.7	30.8	318.2	28.3
SHARE CROPPERS	147.1	28.4	196.5	29.9	273.7	29.1	390.4	34.7
ALL TENURES	518.4	100.0	657.5	100.0	940.0	100.0	1,125.3	100.0
Eleven Former Confederate States ^b :								
OWNERS	770.8	61.6	893.5	58.6	1,062.8	49.9	1,185.6	47.6
RENTERS	154.4	12.3	225.2	14.8	415.7	19.5	457.9	18.4
SHARE CROPPERS	327.0	26.1	406.3	26.6	650.4	30.6	847.9	34.0
ALL TENURES	1,252.2	100.0	1,524.9	100.0	2,128.9	100.0	2,491.5	100.0

Notes:

^a South Carolina, Georgia, Alabama, Mississippi, and Louisiana.

^b Virginia, North Carolina, South Carolina, Georgia, Florida, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, and Texas.

Source: United States Census Office, *Fourteenth Census of the United States, 1920*, Volume V [69], pp. 138-141.

It is commonplace to regard the rise of tenancy as a primary cause of the agricultural backwardness in the South. While the arguments vary, historians have largely agreed that tenancy -- particularly sharecropping -- introduced substantial inefficiencies into the production of cotton. The sharecropper, it is argued, will not work as diligently as an owner-operator, since he would receive only a fraction of the product from his additional increments of effort. It has also been suggested that the insecurity of tenure for sharecropper and renter alike discouraged investment and led to a form of intensive cultivation which exhausted the soil.

On the other hand, if tenancy were clearly less efficient than owner-operation, it is difficult to explain why it should have spread so rapidly, unless one can demonstrate the landowner and laborer were both somehow forced into an inefficient arrangement. This possibility is undermined by the fact that different forms of tenure existed side by side for many years.⁵ Moreover, the contemporary literature reveals that the superiority of various tenure arrangements was hotly debated,

⁵Of the 493 counties in 1880 which reported over 20 percent of their tilled land in cotton, all but one -- Issaquena County, Mississippi, which reported no sharecropping -- reported all three forms of tenure. Only eleven had less than five percent of its farms in sharecropping. These statistics were computed from data in the 1880 Census of Agriculture [71], pp. 30-101.

and that no general agreement was ever reached.⁶ This diversity of both opinion and practice suggests that there were no significant differences between tenure arrangements.

There exists an extensive theoretical literature on the relative efficiency of sharecropping, cash renting, and owner-operation.⁷ While this debate in the literature has not yet reached a definite conclusion, we find the arguments presented by Johnson [35] that sharecropping need not result in an inefficient allocation of resources appealing when applied to the cotton South.⁸ Johnson demonstrates that the traditional argument for the inefficiency of sharecropping rests on the assumption that the landowner is willing to allow the tenant to determine the allocation of resources. In particular, if the tenant is free to specify

⁶For example, a survey of "experienced and intelligent agriculturalists" taken in 1874 in Georgia indicated that 66 percent favored wage payments, 23 percent favored sharecropping, and 11 percent favored renting. The same men reported that they were actually farming in the ratio: 21 percent wages, 49 percent sharecropping, and 30 percent renting (Janes [34], pp. 87-88). Both a survey conducted by Loring and Atkinson in 1869 [39], and one conducted by the Census Office in 1880 [31] also produced numerous conflicting opinions. Some farmers reported using several systems simultaneously.

⁷Perhaps the best study is that of Johnson [35]. The analysis dates back to Adam Smith and Alfred Marshall. Other important contributions are contained in Heady [29] and Cheung [12]. See the references in Johnson and Cheung for a more extensive bibliography.

⁸It is an interesting fact that despite the extensive theoretical debate on the efficiency of sharecropping, there are very few empirical studies on the subject. There appears to be only one such study based on Southern data prior to the mechanization of cotton farming. This is the 1913 paper on the Yazoo-Mississippi Delta Region by Boeger and Goldenweiser [6]. They concluded that although sharecropping appeared to be less productive than leasing for fixed rents, the differences were associated with variations in the quality of land.

the land-labor ratio, he has an incentive to combine more and more land with labor to the point where the marginal productivity of land becomes zero. Johnson points out that the landlord is unlikely to agree to such an arrangement. He would restrict the amount of land to each tenant family in order to prevent a wasteful use of land. Johnson further suggests that the prevalence of the annual lease in sharecropping arrangements gives the landlord an effective means of controlling the labor input of the tenant. The tenant is aware that the landlord has the option of leasing for a fixed rent and that unless the landlord's return under the sharecropping arrangement approximates that which he could receive under a fixed lease, the tenant will be unable to renew his contract in the future. Such a mechanism guarantees that sharecropping will be roughly as efficient as renting.⁹

While these arguments are only suggestive that tenancy might have been efficient, they are sufficiently convincing to cause us to look for other factors to explain the relative backwardness of Southern agriculture.

The increased use of tenancy in the South coincided with a sharp reduction in the average size of farms. Table 8 illustrates the extent

⁹Johnson [35] also presents an alternative model which has been recently explored more fully by Cheung in which the tenant and landlord can achieve an optimal allocation of resources through negotiation of the terms of the sharecropping lease -- including the rental percentage received by the landlord. Johnson rejects this model -- correctly, we believe -- on the basis that there is no evidence that the rental percentage was ever a subject of negotiation in the American South.

Table 8. Average size of farms: 1860-1910

Region	1860	1870	1880	1890	1900	1910
Five State Average ^a	413.8	248.0	159.1	129.8	96.1	80.2
Nine State Average ^b	401.2	218.8	150.0	129.2	98.8	84.7
Eleven State Average ^c	327.4	225.9	156.8	142.4	139.9	116.2

Notes:

^aIncludes South Carolina, Georgia, Alabama, Mississippi, and Louisiana.

^bIncludes the five states listed in note a as well as Virginia, North Carolina, Tennessee, and Arkansas.

^cIncludes the nine states listed in notes a and b as well as Florida and Texas.

Source: United States Census Office, *Thirteenth Census of the United States*, Volume V, [75], pp. 70-71.

of this shift and Table 9 further explores the nature of the change by presenting the number of small and large farms in 1860 and 1870. It is clear that this decline in farm size was a result of the subdivision of large plantations into many smaller tenant farms and that it was not confined to the years immediately after the War. Table 10 supports this interpretation by indicating that, in 1880, eighty-seven percent of the farms 100 acres or less were either rented or sharecropped. Moreover, seventy-nine percent of the farms under 50 acres were operated by tenants.

Did this reduction in farm size cause a fall in agricultural efficiency? The answer is at best unclear, and aggregate data cannot be employed to unravel the mystery, since an observed fall in efficiency could have resulted from any of the multitude of changes which occurred after 1865. We know of no evidence which has been analyzed for the post-war era. The efficiency of the ante-bellum cotton plantation, however, has been an issue of some debate. Out of this debate we have been impressed by the recent quantitative work which has suggested that there were constant returns to scale in the production of cotton. The most comprehensive study is the work of Gavin Wright, who concludes that it does not ". . . appear that the large plantations achieved their size by virtue of more efficient methods, managerial skills, or capital-intensive technology" ([89], p. 231).¹⁰

¹⁰Other studies supporting Wright's conclusion appear in the volume edited by William Parker [46]. See especially the essays by Gallman [23] and Battilio and Kagel [5].

III

The local merchant emerged in the postwar South as the primary retailer supplying the agricultural community. Small dry-goods stores and itinerant peddlers were, of course, present in the South before the War. Their retailing services were a minor adjunct to the major group of commercial facilities centered in the great cotton centers and linked through the factorage system to the production of staples. Large plantations, specializing in a cash crop, had little need for local retailing establishments. As recent studies have shown, the plantation tended to be self-sufficient in foodstuffs.²¹ Any needs beyond this were likely to be met by dealing through cotton factors or directly with sources of supply in the North.

Large planters encountered no difficulty in obtaining seasonal credit from the cotton factors to whom they sold their crop. These agents were willing to supply such financing on reasonable terms. The loan was backed by the planter's holdings of slaves and land. The factor was more than willing to act as an intermediary in order to obtain the purchase option on the growing crop, and he in turn was able to obtain credit from commercial banks in New York, England, and other commercial centers.

The changes which followed in the wake of the War hindered the re-establishment of this system of financial intermediation. Not only did the farmer no longer have slaves which he could offer as collateral

²¹See particularly, Gallman [23] and Battalio and Kagel [5] for support of the self-sufficiency argument.

on small banks -- indeed smaller on the average than Southern banks -- they had over five times as many serving a population of about 1.5 times as large as the South. The result was that despite its small banks, the West generated a per capita level of deposits far greater than the South. While the West, with forty-one percent of the population held twenty-four percent of the deposits, the South, with twenty-six percent of the population, held only six percent of the deposits. Moreover, it is clear that the West was able to rely on small private banks to a far greater degree than the South. This class of banks provided about twenty-three percent of all deposits in the West; the comparable figure for the Southern private banks was fourteen percent. Predictably, the deterrent to deposit banking was greatest in the cotton states, where deposits per capita were barely one-sixth the level in the West and substantially below the Upper South. As had been the case before the War, the financial assets of Southern banking were concentrated in New Orleans. Nearly one-third of all deposits in the South were held in that city.

The institutional constraints such as the provisions of the National Banking Act, and the nature of credit demands from small Southern farmers combined to create an environment which stifled the development of a viable banking and commercial network outside the major port cities. As a result, the majority of Southerners had to look to other financial intermediaries in their search for credit.

Notes

^aRegions are defined as follows:

EAST: Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, and Maryland.

WEST: Ohio, Indiana, Illinois, Michigan, Wisconsin, Iowa, Minnesota, Missouri, Kansas, Nebraska, and Kentucky.

SOUTH: Virginia, West Virginia, North Carolina, Tennessee, Georgia, Alabama, Louisiana, South Carolina, and Arkansas.

COTTON SOUTH: Alabama, Georgia, Mississippi, South Carolina, and Louisiana excluding New Orleans.

^bSavings bank data is not available for the Cotton South.

Source: U. S. Comptroller of the Currency, *Report, 1880*, [79], p. LXXVI, U. S. Comptroller of the Currency, *Report, 1881*, [80], pp. CXXXVIII-CXXXIX.

Table 15. Banking capital and deposits, by type of bank; May 1880

Region ^a and Type of Bank	Number of Banks Reporting	Capital		Deposits		Total Reported Deposits (\$000)	Deposits per Capita (\$)
		per Reporting Bank (\$000)	per Reporting Bank (\$000)	per Reporting Bank (\$000)	per Capita (\$)		
EAST							
National Banks	1,202	280	534	641,868	41.17		
State Banks	274	168	181	49,594	3.18		
Private Banks	959	47	79	75,761	4.86		
All Commercial Banks	2,435	176	315	767,223	49.22		
Savings Banks	263	(n.a.)	1,212	318,756	20.45		
WEST							
National Banks	738	131	296	218,448	11.57		
State Banks	542	96	201	108,913	5.77		
Private Banks	1,616	17	60	96,324	5.10		
All Commercial Banks	2,896	61	146	423,685	22.44		
Savings Banks	50	(n.a.)	1,165	5,825	0.31		
SOUTH							
National Banks	136	174	296	40,270	3.35		
State Banks	180	89	153	27,486	2.28		
Private Banks	227	19	49	11,058	0.92		
All Commercial Banks	543	81	146	78,814	6.56		
Savings Banks	5	(n.a.)	290	145	0.01		
COTTON SOUTH^b							
National Banks	35	178	205	7,175	1.26		
State Banks	56	95	140	7,819	1.38		
Private Banks	90	20	40	3,620	0.64		
All Commercial Banks	181	74	103	18,614	3.20		

While these restrictive provisions applied only to National Banks, state banks also faced barriers to entry. In order to discourage state banks, Congress in 1865 passed a ten-percent tax on the note issue of all Non-National banks [57]. This measure virtually eliminated state bank note issue throughout the country.¹⁹

State or private banks could avoid the stringent requirements of the National Banking System and the tax on note issue by relying on deposit banking. Conditions in the South after 1865 were less favorable to the introduction and spread of deposit banking than any other region. Low literacy rates made it difficult to convince farmers to employ the new and relatively complex form of money. Moreover, the sparseness of population in the rural South increased the transaction costs of accepting and clearing checks and made bank notes a more convenient means of effecting payment.

The differences in the development of deposit banking between the Western States and the South can be used to illustrate the extent to which Southern banking was hindered by these obstacles. Table 15 presents data on a number of banks, size of banks, and deposits of banks for several regions of the United States in 1880.²⁰ The absence of deposit banks in the South is strikingly apparent. While the West relied

¹⁹The estimated circulation of state notes fell from \$143 million in 1865 to \$20 million in 1866 and to less than \$1 million by 1879. See *Annual Report of the Secretary of the Treasury, 1928* [85], p. 552.

²⁰Table 12 presents the situation before the War. Although the West also lagged in the development of deposit banking before the War, as Table 14 demonstrates, she expanded her banking system using deposits in the post-war era far more extensively than the South.

forty-two percent, and as low as thirty-six percent in the cotton States.¹⁵ Though the share of loans approached its prewar level for National Banks by 1890, the South still lagged far behind. Reports from 23 state banks in Georgia and South Carolina made in 1880 indicated that their holdings of loans was also quite low; the ratio of loans to total assets was about 0.45 compared to 0.66 in the East and 0.60 in the West.¹⁶

Commercial banks were more willing to supply long-term credit on mortgages than they were crop liens to small farmers. However, even here the risk and high transaction costs involved in dealing with numerous small farmers and the illiquidity of mortgage debt served to limit the extent to which banks were willing to extend such credit. According to the data for 1890 presented in Table 16, Southern state and private commercial banks held less than three percent of their assets in loans backed by real estate. Savings Banks -- which were a major source of mortgage money in the West -- held only eleven percent of their assets in loans on real estate in the South. By contrast, western commercial banks held fifteen percent of their assets in such loans; savings institutions held thirty percent. The same problems which limited mortgage loans contributed to the failure of the South

¹⁵This change may reflect the requirement that government bonds back note issue of National Banks. In 1855-60 the ratio of bonds and stocks to total assets was .06-.09; in 1869 the figure for National Banks was .28. For all reporting state banks in 1869, it was about .12.

¹⁶Data from *Report of the Comptroller of the Currency* [79], 1880, pp. CXL-CXLV.

changes were often severe, and yields fluctuated considerably due to weather or insect damage. The small farmer usually had no other assets to offer as collateral; more often than not he did not even own the land he was working. The inherent uncertainty of agricultural production made such unsecured loans highly risky.

The attractiveness of this form of short-term debt was further reduced by the high transaction costs involved when dealing with many small farmers. Any reasonably sized commercial bank attempting to supply this market would find itself dealing in a large volume of notes of small denomination. Each one of these notes would involve a considerable transaction cost. Not only would there be the difficulty of drawing up the note -- often complicated by the fact that a large proportion of farmers were illiterate -- but the bank had to obtain information on the credit-worthiness of the farmer and incur the cost of collection and enforcement in the event of non-payment. It is not surprising that commercial banks at no time held any considerable proportion of the outstanding crop liens.¹⁴

However, the banking system before 1860 held a large share of its portfolio in the form of loans. Table 12 shows that between sixty-five and seventy percent of all assets were loans. After the war this percentage fell drastically; the 1869 figure for National Banks was

¹⁴In his study of ante-bellum banking in Louisiana, Greene found that large banks before 1860 similarly stayed away from rural mortgages and notes (Greene [26]).

Presented in

The data ~~of~~ ^{presented in} Tables 11 through 13 suggest that the South experienced serious problems in rebuilding her banking and financial network after 1864. To understand the difficulties faced by a Southern bank attempting to provide agricultural credit during this period, it is important to understand the nature of credit demands in the South. Essentially there were two very distinct types of credit needs. The first arose from the seasonal nature of agricultural production. The Southern farmer required financing throughout the planting and growing season. In the case of cotton, the season begins typically in January and the crop is not picked until November or December. During the year-long growing season, the cotton farmer (~~big or small~~ ^(plantation owner or small tenant)) required food and other supplies for himself and his family, feed for his animals, seed, fertilizer and other inputs, as well as money to pay wages and board to any workers he might employ. To finance these expenditures the farmer desired short-term credit which, if his crop were successful, he would be able to repay at picking time.

A different type of credit demand stemmed from the desire for long-term capital investment. During the nineteenth century, the agricultural sector absorbed most of the investment capital generated by the Southern Economy. The expansion of tilled acreage, the increase in the number of livestock, the construction of farm buildings, and the purchase of farm equipment constituted the largest elements in this demand for capital.

In the post-war environment, commercial banks were not particularly well adapted to supply either of these two credit needs. Short-term loans, secured only by the growing crop, would be highly illiquid. Price

The modest increase in banks evident in Table 11 masks important changes in the size and nature of Southern banks after 1865. Table 12 presents data from the aggregate balance sheet of banks reporting to the Secretary of the Treasury in 1855 and 1860, and Table 13 presents similar data for National Banks in 1869, 1880, and 1890.

The South was always a region characterized by relatively few banks. Before the Civil War, however, Southern banks were quite large. In the cotton states, banks reported nearly twice the capital and value of assets per bank as that estimated for the country as a whole. While it is true that (outside of New Orleans) Southern banks relied much less on deposit banking than the East, there is little to indicate that the Southern financial network was "backward". Indeed, if any region seemed to have inadequate banking before the War, it was the West, not the South.

Judging by the data for National Banks* in Table 13 this situation changed dramatically after 1865. In 1869 Southern banks were markedly smaller than those in the rest of the country, with the cotton states experiencing the most drastic decline in bank size. This effect appears to be general; and not confined to the National Banks. Data for 1880 indicate a substantial difference in bank size for private and state banks as well.¹³

¹³See the data of Table 15 below. The absolute fall in the size of Southern banks is probably considerably higher than that indicated by Tables 12 and 13. The ante-bellum capital estimates were defined less inclusively than those after 1865. The effect this incompatibility would have on the relative size of Southern banks is ambiguous, since it would also affect the totals for the United States.

* ^{comprehensive} Similar data is not available for state or private banks after the war.

Notes:

^aThe regions are defined as follows:

Cotton South: Alabama, Georgia, Mississippi, South Carolina, Arkansas,
and Louisiana excluding New Orleans.

Upper South: Virginia, West Virginia, North Carolina, and Tennessee.

South: Includes those states listed above plus New Orleans.

Sources: Data computed from state totals given in:

1869: U.S. Secretary of the Treasury, *Report 1869*, [84].

1880: U.S. Comptroller of the Currency, *Report 1880*, [79].

1890: U.S. Comptroller of the Currency, *Report 1890*, [81].

Table 13. Characteristics of National Banks: 1869, 1880, 1890.

Year and Region ^a	Notes in					Total Reported		Ratio of Loans to Assets
	Number of Banks Reporting	Capital per Bank (thousands of dollars)	Circulation per Bank (thousands of dollars)	Deposits per Bank (thousands of dollars)	Loans per Bank (thousands of dollars)	Assets per Bank (thousands of dollars)	Assets (thousands of dollars)	
<u>1869:</u>								
Total United States	1,628	329	183	360	369	946	0.419	
Regions								
South	62	185	114	274	204	609	0.335	
Cotton South	15	175	121	328	288	718	0.385	
Upper South	45	156	93	227	155	489	0.317	
New Orleans	2	869	530	879	656	2,273	0.287	
<u>1880:</u>								
Total United States	2,052	301	157	373	455	938	0.485	
Regions								
South	115	216	126	314	277	653	0.424	
Cotton South	37	219	130	211	214	592	0.362	
Upper South	71	184	111	298	249	551	0.451	
New Orleans	7	531	259	1,036	895	2,012	0.445	
<u>1890:</u>								
Total United States	3,326	245	38	445	545	822	0.663	
Regions								
South	220	218	30	341	407	657	0.620	
Cotton South	97	195	23	263	305	529	0.576	
Upper South	114	208	30	304	402	606	0.663	
New Orleans	9	596	103	1,641	1,576	2,682	0.588	

Notes:

^aThe regions are defined as follows:

East: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, and Maryland.

West: Illinois, Indiana, Ohio, Michigan, Wisconsin, Minnesota, Kansas, and Nebraska Territory.

The Cotton South: Alabama, Georgia, Mississippi, and South Carolina.

The Upper South: North Carolina, Tennessee, and Virginia.

The South: Includes those states in both the Cotton South and the Upper South plus Louisiana.

Source: U.S. Secretary of the Treasury, *Report ... 1863*, [83], Tables 10 and 12, pp. 210-14.

Table 12. Ante-bellum Banking Characteristics: 1854-5; 1859-60

Year and Region ^a	Number of Banks Reporting	Capital		Notes in Circulation per Bank	Deposits per Bank	Loans per Bank	Total Reported Assets per Bank	Ratio of Loans to Assets
		(thousands of dollars)	per Bank					
<u>1854-5:</u>								
Total United States	1,307	254		143	146	441	624	0.707
Regions:								
East	904	119		131	163	459	640	0.717
West	183	106		108	64	147	317	0.464
South	184	418		268	207	643	946	0.680
Cotton South	49	626		397	96	911	1,308	0.697
Upper South	116	224		201	187	401	548	0.732
New Orleans	19	1,062		347	615	1,429	2,548	0.584
<u>1859-60:</u>								
Total United States	1,562	270		129	163	443	634	0.699
Regions:								
East	990	285		99	189	485	650	0.749
West	288	88		96	36	99	238	0.416
South	198	463		265	219	668	1,077	0.620
Cotton South	56	650		487	181	1,033	1,609	0.642
Upper South	129	238		162	105	302	460	0.657
New Orleans	13	1,884		891	1,521	2,723	4,914	0.554

Source: Number of National Banks: From the December call reports of the previous year (with the exception of 1866, which is based on the October 1865 call reports, and 1869, which is based on the September 1869 call reports) to the Comptroller of the Currency. [84]. Secretary of Treasury, *Annual Report 1869* [84], p. 41; Comptroller's *Report 1874* [77], p. xl; Comptroller's *Report 1877* [78], pp. 28-37; Comptroller's *Report 1880* [79], pp. 166-175.

Number of State and Private Banks: For 1866 the data was obtained by counting the banks listed in Homan's, *Bankers Almanac, 1866* [32]. The list is dated December, 1865. For 1869 the data was obtained by counting the number of state and private banks listed in Homan's, *Bankers Almanac, 1869* [33], pp. 47-78. The list is dated December 1868. For 1874 the number of banks was obtained from Homan's, *Bankers Almanac, 1874* [33a], p. 3-132. The list is dated December 1873. For 1877 and 1880 the data comes from Barnett [4], Tables I and II, facing page 248; and Table III, facing page 250, except for the number of state banks in Tennessee in 1877 which was obtained from Homan's, *Bankers' Magazine* Volume 31, p. 898. In all years the total state banks for the United States includes a small number of trust companies of which there were none in the South.

Table 11. The number of banks in nine Southern States; 1866-1880

Year and Type of Bank	Alabama	Arkansas	Georgia	Louisiana	Mississippi	North Carolina	South Carolina	Tennessee	Virginia	Total, nine Southern States	Total, United States	South as a percentage of United States
<u>1866:</u>												
National	0	0	1	1	1	2	0	7	10	22	1,517	1.5
State	0	0	0	7	0	0	0	5	0	12	277	4.3
Private	<u>18</u>	<u>3</u>	<u>15</u>	<u>19</u>	<u>4</u>	<u>6</u>	<u>9</u>	<u>18</u>	<u>23</u>	<u>115</u>	<u>966</u>	11.9
Total	18	3	16	27	5	8	9	30	33	149	2,760	5.4
<u>1869:</u>												
National	2	2	7	2	0	6	3	13	17	52	1,628	3.2
State	2	0	0	10	2	0	0	1	3	18	259	7.0
Private	<u>29</u>	<u>3</u>	<u>30</u>	<u>23</u>	<u>11</u>	<u>16</u>	<u>18</u>	<u>32</u>	<u>32</u>	<u>194</u>	(n.a.)	(n.a.)
Total	33	5	37	35	13	22	21	46	52	264	(n.a.)	(n.a.)
<u>1874:</u>												
National	9	2	13	8	0	10	12	24	22	100	1,975	5.1
State	7	0	25	8	9	7	6	13	40	115	(n.a.)	(n.a.)
Private	<u>28</u>	<u>10</u>	<u>48</u>	<u>17</u>	<u>14</u>	<u>10</u>	<u>24</u>	<u>17</u>	<u>35</u>	<u>203</u>	(n.a.)	(n.a.)
Total	44	12	86	33	23	27	42	54	97	418	(n.a.)	(n.a.)
<u>1877:</u>												
National	10	2	12	7	0	15	12	25	19	102	2,083	4.9
State	6	1	27	9	7	3	4	18	40	115	838	13.7
Private	<u>17</u>	<u>12</u>	<u>39</u>	<u>7</u>	<u>21</u>	<u>9</u>	<u>19</u>	<u>10</u>	<u>30</u>	<u>164</u>	<u>2,432</u>	6.7
Total	35	15	78	23	28	27	35	53	89	381	5,353	7.1
<u>1880:</u>												
National	10	2	13	7	0	15	12	24	17	100	2,025	4.9
State	7	3	26	10	6	5	4	17	44	122	846	14.4
Private	<u>23</u>	<u>9</u>	<u>40</u>	<u>8</u>	<u>25</u>	<u>9</u>	<u>18</u>	<u>14</u>	<u>33</u>	<u>179</u>	<u>2,573</u>	7.0
Total	40	14	79	25	31	29	34	55	94	401	5,444	7.4

pace with the rest of the country in the development of banking institutions. ~~In Tables 11 through 13 we present data relating to Southern Banking developments from 1855 to 1890, along with some comparative data on banking in the United States.~~

Table 11 shows the number of National Banks, state chartered banks, and private unchartered banks for the United States and nine Southern states between 1866 and 1880. We can be reasonably confident that all but the smallest of the commercial banks have been counted. The figures illustrate the disruption of Southern Banking right after the War. In 1866, the South had only one and a half percent of all National Banks, and most of these were located in the two states of Virginia and Tennessee. Four-fifths of the Southern banks were unchartered private banks. Though the number of banks jumped substantially by 1874, there was little growth thereafter, and in 1880 the South still had only seven percent of all banks and fewer than five percent of the National Banks.

The census of population in that year reported that the same nine Southern states had twenty-two percent of the nation's population.

bulk of the commercial banking business came under the control of the Comptroller of the Currency. National Banks were required by the Act to report quarterly to the Comptroller. The annual reports of the Comptroller contain complete balance sheet data for every National Bank. The Comptroller's Report also provides summary statistics for non-National Banks who reported on a voluntary basis. These series become reasonably complete after 1876-77 for state-chartered banks in response to a request from Congress for better information. The coverage of private banks was never fully adequate partly because of the difficulty of specifying precisely what commercial activities constituted banking. Some check on the extent of the coverage of the Comptroller's Report can be made by comparing the number of State and Private Banks reporting to the Comptroller with the list of banks published in Homan's Bankers' Almanac, Bankers' Magazine, and various miscellaneous publications. A careful examination of this material has convinced us that by 1880 all but the smallest of commercial banks are included in the official statistics. Particularly useful summaries of available banking data for this period can be found in the reports of the National Monetary Commission; see A. Piatt Andrew [2], George E. Barnett [4], and Davis R. Dewey and Robert E. Chaddock [17].

conclusion that the rise of the small tenant farmer, by itself, did not imply a loss in efficiency. Again we are inclined to search elsewhere for the source of Southern agricultural inefficiency.

The hypothesis which this paper explores can be summarized in ~~three~~ ^{four} broad statements:

1) That because of the readjustments in agriculture and the difficulties in forming new banks under the Banking laws, the South was unable to re-establish a viable network of commercial banks to serve her agricultural economy.

2) That as a result of this failure to develop banks, the role of supplying credit fell to the local merchant, ^{3) The local merchant} ~~who~~ because of his small size and the limited extent of his market, introduced inefficiencies and monopoly distortion into the capital markets.

^(constrained reactions?) That the local merchant by exercising this monopoly power interfered with the efficient production of agricultural commodities.

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II I

While comprehensive data on the banking system of the United States between the passage of the National Banking Act in 1864 and the establishment of the National Monetary Commission at the turn of the century is not available, it is nevertheless possible to develop a reasonably accurate picture based upon the reports of the Comptroller of the Currency and the retrospective studies of the National Monetary Commission.¹² This picture reveals that the South was unable to keep

¹²After the passage of the National Banking Act in 1864 the

An examination of the traditional arguments provided supporting the presence of economies of scale in the ante-bellum period suggest that they were associated with slavery, and hence not applicable to the postwar situation.¹¹ This is not to deny, of course, that substantial financial advantages to scale might have existed. The large farmer was better able to obtain credit in the market; able to bargain more advantageously for supplies; able to obtain lower rates for transportation, and higher prices for output. Wright concludes that these factors were the likely explanation for the existence of large plantations ([90], pp. 147-148). Unfortunately, very little evidence has been uncovered which would indicate the magnitude of such gains. To the extent that they represent a substantial effect, they might provide part of the explanation for the continued dominance of large landholdings in the South after the War. The large landholder could continue to obtain these marketing advantages by acting as agent for his tenants despite the fragmentation of production. Such advantages would be closely linked to the development of credit and marketing institutions. They would not, however, rule out the possibility of having small, efficient units of production.

The arguments outlined above are admittedly only suggestive. However we find them persuasive enough that we tentatively accept the

¹¹A good summary of the traditional argument favoring economies of scale is in Gray [25], pp. 478-80. A detailed discussion of the entire debate surrounding the efficiency and scale-effects of plantation slavery can be found in Ransom and Sutch [50].

Table 10. The distribution of farms by size and tenure of farm operator in 1880 in the South.

Size and Tenure Class	<u>Five States</u> Number	<u>Nine States</u> Number	<u>Eleven States</u> Number
Under 50 Acres			
Owners	46,037	120,040	140,489
Renters	61,807	90,469	101,751
Sharecroppers	108,898	187,731	231,509
Total	216,742	398,240	473,749
50 to 100 Acres			
Owners	59,245	148,490	173,325
Renters	12,970	22,134	24,089
Sharecroppers	21,717	40,837	47,967
Total	93,932	211,461	245,381
100 to 500 Acres			
Owners	149,851	330,766	400,338
Renters	11,102	23,270	25,383
Sharecroppers	15,195	30,310	44,008
Total	176,148	392,346	469,729
Over 500 Acres			
Owners	28,678	46,632	56,690
Renters	1,649	2,873	3,160
Sharecroppers	1,269	3,075	3,540
Total	31,596	52,580	63,390
All Sizes			
Owners	283,811	645,928	770,842
Renters	87,528	138,746	154,383
Sharecroppers	147,079	269,953	327,024
Total	518,418	1,054,627	1,252,249

Note: The regions are defined as in Table 8.

Source: United States Census, *Productions of Agriculture ... 1880*, [71], pp. 28-29.

Table 9. The Number of Small and Large Farms by Improved Acres, 1860 and 1870

States	Under 100 Acres		Change	Percentage Change	500 Acres and Over		Change	Percentage Change
	1860	1870			1860	1870		
5 States ^a	114,669	229,949	115,280	100.5	12,028	5,897	-6,131	-51.0
9 States ^b	292,963	529,344	236,381	80.7	18,501	9,940	-8,561	-46.3
11 States ^c	327,616	591,531	263,915	80.6	19,344	10,564	-8,780	-45.4

Notes:

^aIncludes South Carolina, Georgia, Alabama, Mississippi and Louisiana.

^bIncludes the five states listed in note a as well as Virginia, North Carolina, Tennessee and Arkansas.

^cIncludes the nine states listed in notes a and b as well as Florida and Texas.

Source: United States Census Office, *Report on the Productions of Agriculture ... 1880*, [71], p. 27.

for a loan, but the rise of tenancy and the fragmentation of farming operations meant that the factor would have to face the same problems in supplying agricultural credit for many small farmers that faced the commercial banks. Moreover, the cotton factor's position as the primary agent in the marketing of cotton was being eroded by improvements in transportation and communications. These allowed the large planter or local merchant to deal directly with the mills.²²

While the prewar merchant was the source of supply and credit only to the small farmer on the periphery of economic activity, his postwar counterpart became the major financial intermediary and retail agent in the South. The interruption of the war and the breakdown of the factorage system made provisions in 1865-66 very expensive. Northern merchants, discharged soldiers and other entrepreneurs swelled the ranks of existing merchants.²³

This large influx of entrants did not disappear after the war-time scarcity subsided. They were able to find a ready market arising

²²For a discussion of the improvements in the marketing of cotton resulting from better communication and the development of futures markets, see Woodman [88], pp. 289-94. Switzler [65] gives a detailed account of the transportation improvements in the South from the War to 1886.

²³See the remarks of Reid [52], pp. 481-482; Somers [61], pp. 70, 214-243; and Clark [15]. The impressions of travelers are in this case supported by data from the census, which show a marked rise in merchants and related trades in the occupations for Southern states in 1870 and 1880 (U.S. Census [70], [72], [73]).

from the newly created family farms produced by the widespread adoption of tenancy. In dealing with this clientele, the local merchant offered an important service; he had an established relationship with the Northern credit market. The wholesale suppliers in the North were willing to send goods on commission, allowing him in turn, to grant credit to the local farmers.

From this description, it appears as though retail trade in the South should have produced a competitive market structure. High returns to furnishing supplies to Southern farmers lured entry into merchandising, and rivalry between entrants should have encouraged competitive behavior. Moreover, entry was apparently stimulated by the Northern wholesalers, who sent their own agents South and advertised heavily in the newspapers of border cities such as Louisville, St. Louis, and Cincinnati. For the interested entrepreneur, the opportunity was clearly available.

Yet, by the 1880's, the market structure of Southern retailing was universally attacked as being highly monopolistic. These views are supported, furthermore, by more substantial evidence than the multitude of complaints by individual farmers against merchant practices. Most damning is the allegation that merchants gained higher returns than others -- as evidenced by their substantial accumulations of wealth. Writing in 1894, Charles Otken noted that: "everywhere are men engaged in the furnishing business whose [original] capital ranged from \$500 to \$5,000. In a period of twenty-five years, when southern planters were struggling with poverty, debts, and the labor system, they managed to accumulate

handsome fortunes, varying from \$10,000 to \$200,000"([43], p. 80).

Grady [24] makes a similar observation, and Harry Hammond, in a careful survey of retailing and commerce in South Carolina in 1882 likewise notes the relative prosperity of storekeepers [62].

A second indication of monopoly power is the exorbitant charges which the merchant levied against his customers for the provision of supplies on credit. Such goods were sold to the farmer at "credit prices" which were substantially above the "cash prices". The method of charging interest through price differentials makes the determination of actual rates of interest very imprecise. A careful study by Hammond of merchant charges in Louisiana and Georgia found effective rates of interest ranging from 50 to 110 percent ²⁴ ([28], p. 153). While part of the explanation for these high credit charges is clearly attributable to inefficiencies and high risks associated with rural retailing, there can be but little doubt that these factors fail to completely explain the abnormally high levels of interest charged to farmers throughout the South. A substantial element of monopoly power must have been present.

It is not difficult to see why the local merchant replaced the cotton factor as the principal intermediary in cotton after 1865. The

²⁴ Hammond based these estimates on surveys of credit conditions taken by the Georgia Department of Agriculture over the period 1880 to 1890 and by the Louisiana Commissioner of Agricultural between 1886 and 1896. A similar survey taken in 1887 in North Carolina [36] produced the same results. Evidence abounds that these conditions existed throughout the South (Otken [43], Chapter 11; Harry Hammond [27], p. 517).

factor no longer enjoyed a marketing advantage once communications and transportation brought agents from the northern mills to the South; and neither the factor or the commercial banks were willing to extend credit to small farmers with no solid collateral. What is less obvious is how the merchant was able to acquire and maintain an economic stranglehold on the sources of credit to small farmers for the next 40 years.

The basic explanation behind the merchant's monopoly was the essentially local nature of his business and the high costs of entry to those who wished to penetrate his protected market. The most important factor limiting the size of merchant operations was the need for detailed information on the individuals to whom he was extending credit. As we noted in our discussion of commercial banks, a personal knowledge of the borrower's skills and trustworthiness was essential to the lender of funds to small farmers. Such information was usually only gained through experience with the borrower over a period of time. Certainly the local merchant who had painstakingly collected a "book" on all of the nearby farm operators would be loathe to supply this information to a competitor. The would-be entrant thus would have to acquire the necessary knowledge through the costly trial and error procedure used by the existing merchant. It does not appear as though the existing merchant could gain economies of scale by enlarging the number of their clientele at the expense of a neighboring merchant, since a merchant's operation entailed constant surveillance of each farmer's performance. Expanding the number of customers would either increase the risk of default or increase the cost of maintaining adequate information. Limited transportation facilities available to small farmers further prevented a merchant from attracting customers located a

substantial distance from his store.

Because of the high entry costs, the potential gains from invading a merchant's market either by new entry or through expansion of a competitor were small. Although we cited evidence to suggest that the merchant made monopoly returns, it would still be a mistake to suppose that the volume of his profits were so large as to attract the serious interest of a prospective entrant facing high entry costs. Despite his high mark-up and substantial credit charges, the volume of business of the country merchant was invariably small. An 1882 survey of retailing in South Carolina shows this dramatically. In the major cotton producing areas of the state, there was an average of one store for every 25 farms. The average wealth of these storekeepers was under \$6,000 -- substantially less than the average capital invested in the private banks included in Table 15.²⁵ Not only were there relatively few farms per store; the amount of supplies demanded by each farmer was also likely to be fairly small. The needs of a fifty acre farm would surely not exceed \$100 per year in most cases.²⁶ Even if the farmer asked for a greater sum, it is unlikely that the storekeeper would wish to bear the risk of allowing a small operator to get that far into debt. Accordingly, the merchant's volume of business was small, with little opportunity for substantial expansion.

Nevertheless, as long as he kept his market small, the merchant could both hedge against risk of failure and prevent intrusion into his market by binding the farmer to one source of supply and one outlet for

²⁵The data are from H. Hammond [62], as reported in Switzler [65]. A total of 71,000 farms and 2,909 stores were included in the cotton counties selected.

²⁶The figure is rather crudely estimated on the needs of a farm from the 1880 manuscript census data regarding implements, fertilizer, and livestock feed, combined with the requirements of the family on the farm.

his farm products. This was accomplished by the use of the crop lien. We have already emphasized the inability of the small tenant farmer to offer collateral of a sort which could secure a loan at a commercial bank. The merchant thus accepted a lien on the only available asset -- the forthcoming crop. Such a practice was fostered -- indeed made possible -- by the enactment of crop lien laws which permitted the merchant to legally enforce such contracts. Though passed to alleviate the problem of securing credit for the small farmer, the effect of these lien laws was to bind the farmer to a single merchant.²⁷ The lien gave the merchant legal title to the crop, effectively preventing farmers from pitting one merchant against another. Once his crop was pledged, the farmer had no further collateral, and he was committed to deal with the lien-holder until all debts -- past and present -- were fully repaid.

Other forces tended to further reduce the opportunity of farmers to shop around for goods. The high illiteracy rates cited earlier meant that the debtor could not readily check on the storekeeper's books.²⁸ Nor was an illiterate farmer easily reached by advertising from some nearby competitor or supply house outside of the region. Illiteracy

²⁷On the early passage of lien laws, see Zeichner [91]; Banks [3], Chapter III; Hammond [28], Chapter V; and Brooks [8], Chapter III. There can be but little doubt that the lien system was widespread. See the remarks by Hemphill [30] regarding South Carolina; by Janes [34] regarding Georgia; and by Hammon [28], Chapter V; and "Southerner" [63] regarding the South in general.

²⁸Fred Shannon related a tale which illustrates this point very well. Assured that the books exactly balanced, the Black cropper inquired: "'then what's I gonna do with them two bales I ain't done hauled in yet?' 'Tut, tut! Just look at that! Here's two pages stuck together. I'll have to add this whole account up again.'" (Shannon [59], p. 93)

unquestionably increased the costs of dissemination of information on prices and goods for sale.²⁹

If he were Black, the racist attitudes of Whites further prevented the farm operator from switching storekeepers. Denied voting rights and participation in the law enforcement, the Freedmen were effectively barred from redressing any grievances which he might have against the merchant.

The small market of the merchant was, therefore, relatively secure from competitive pressures. To be sure, if he reaped inordinately large profits some enterprising entrepreneur might be tempted into the market in spite of the high entry costs. And, occasionally, a farmer might become sufficiently fed up with a merchant's monopoly prices to move elsewhere. Yet neither threat was likely to be significant. The natural limits to the market tended to discourage entry by either local rivals or northern merchants. The latter were content to supply goods on commission to the Southerner and let him cope with the problems of rural credit to farmers. For the farmer to leave the region involved a major expense under conditions of considerable risk. Once resettled the likelihood remained that he would again encounter the same monopoly practices he had left behind. Not until a completely new alternative appeared -- migration to the urban areas of the North -- did the threat

²⁹Thus it was only after literacy increased markedly that a serious external rival could develop to challenge the local merchant. This was the mail-order house. The most famous of these was Sears and Roebuck, founded in 1886.

of moving become very real.³⁰

There remains one puzzle in the development of credit institutions in the South: Why was the landowner willing to allow the exploitation of his tenants by the merchant? Landlords presumably had both the power (i.e. collateral in the form of land) and the incentive (inefficient use of land) to challenge the merchant's monopoly power. One explanation for this lack of action is the commonly held view that the merchant and landlord were one and the same person. Such a merger of interests would, of course, further enhance monopoly power by combining a monopoly of credit and land. Though it is generally accepted that this union took place, the actual rise of a class of merchant landlords has never been comprehensively demonstrated.³¹ Historians have cited scattered instances of landlords becoming merchants and merchants becoming landlords (c.f. Woodman [88], p.311). An additional factor might have been a preoccupation on the part of landowners with status rather than monetary returns. Content with the relatively risk-free returns from their lands, they might have been uninterested in the business of merchants. But whatever the reason, our arguments and the evidence we have presented indicate that the merchant's monopoly remained unchallenged until the end of the century.

³⁰This is not to say there was no migration in the South prior to the exodus North in the twentieth century. In fact, substantial numbers of White and Colored migrants moved within the South throughout the Reconstruction period. However, the motives for these moves appear to have resulted from the higher returns from better soil in the West, not an attempt to escape monopoly in the native region.

³¹By 1900 the large number of "tenant plantations" is consistent with the rise of a landlord-merchant class at a later date.

IV

The Southern retail merchant was a monopolist in a limited, local market. Transportation problems, and the costs of transacting business on credit effectively prevented an expansion of his business through attracting a greater number of customers. Apparently, the merchant was able to increase his volume of business and simultaneously strengthen his monopoly position by requiring his customers to concentrate on the production of cotton or some other cash crop and purchase their food from him. By virtue of his local monopoly he could refuse to supply credit on any crop other than cotton. Certainly there is evidence to support the contention that the merchant preferred a lien on a cotton crop to one on corn or other food crops.³² Not only did he see the lack of self-sufficiency as an increase in his business, his particular preference for cotton was based upon its lower risk, lower handling costs, and greater marketability relative to food crops. The highly developed international market for cotton, coupled with cotton's lack of perishability, stabilized the merchant's market from year to year price fluctuations and the vicissitudes of local conditions in contrast with perishable food crops. Moreover, cotton's resistance to crop failure and the small farmer's familiarity with its production further reduced

³²Crop-lien contracts were not infrequently drawn up specifying that cotton be grown in sufficient quantity to cover all charges made during the year. For example, see the crop-lien contract reproduced in "Southerner" [63], p. 338. Bull disputes the prevalence of the one-crop lien, and it is true that almost all liens extended to any crop the farmer produced. However, such provisions served merely to give added security to the debt in the case of a failure of the cotton crop (Bull [11], pp. 41-42).

the risk of a cotton lien in the view of the merchant.

Contemporaries frequently voiced the complaint that the merchants would refuse to deal on any other basis than a cotton lien.

A survey of both landlords and tenants taken by the North Carolina

Department of Labor Statistics in 1887 produced these typical responses: ³³

The landlord and merchants who furnish supplies on time won't let [the tenants] sow much grain -- they want cotton: and having to buy on time, they have to do as the merchant or landlord says, and the result is, they do not often pay out, and when they do they have nothing left (Jones [36], pp. 88-89).

. . .we shall soon be swallowed up by the commission merchants and guano men. It is cotton! cotton! cotton! Buy everything and make cotton to pay for it (Jones [36], p. 92).

We are obliged to buy on time and pay 50 or more percent, hence are compelled to make money crops mostly to pay with: often-times then otherwise fail to pay out (Jones [36], p. 129).

The merchant's insistence on cotton and his monopoly of credit may have prevented the smaller farmers from diversifying even if it was in their own interest to do so. Certainly the agriculturalists of the time felt that the lack of diversification was one of the chief barriers to economic growth in the South.³⁴ The argument was that the

³³For similar contemporary opinions, see Otkin [43], pp. 54-64; and Smith [60], pp. 62-63, 156. Also see Hammond [28], pp. 150-152. That these practices of the merchants continued into the mid-nineties is supported by frequent testimony before the Senate Commission on Agriculture [86].

³⁴The classic statement of this position can be found in Grady: "The first reform, however, that must be made is in the system of farming. The South must prepare to raise her own provisions, compost her own fertilizers, cure her own hay, and breed her own stock. Leaving credit and usury out of the question, no man can pay seventy-five cents a bushel for corn, thirty dollars a ton for hay, twenty dollars a barrel for pork, sixty cents for oats, and raise cotton for eight cents a pound" [24], p. 723. Also see Jones [36], pp. 76-77.

small farmer was "locked-in" to the production of staple crops by the merchants. The resulting low productivity of agriculture kept the small farmer perpetually in debt, preventing him from escaping the system. The advice which was constantly offered was for each farm to become self-sufficient in the production of food.

Despite this advice, there is considerable evidence that after the Civil War, the South ceased to be self-sufficient.³⁵ Table 16 presents the per capita level of corn production and the stock of hogs per capita in five Southern states at each census from 1850 to 1890. The table clearly indicates a marked decline after 1860 and that the per capita levels of these two basic foodstuffs had barely approached one-half of the prewar level of production as late as 1890.³⁶

It appears that the Southern agricultural sector became dependent upon outside sources for its supply of food. All contemporary reports agree that the small farmer purchased rather than raised a considerable portion of his basic food requirements. Data presented by Hammond for the state of Georgia indicate that about 30 percent of the farmer's requirements of corn, bacon, and hay were purchased rather than produced

³⁵Robert Gallman has argued that *ante-bellum* Southern agriculture was largely self-sufficient in the provision of foodstuffs (Gallman [23]). This conclusion upset the traditional view that slave plantations specialized in cotton production to the exclusion of food crops (see North [41]). This view was challenged by Albert Fishlow [21] and defended by Robert Fogel [22]. Also see the rejoinders by Fishlow and Fogel and the comments of the editor in Andreano [1], part III.

³⁶This decline cannot be explained by a shift toward production of other foodstuffs. While the Census data are incomplete on the production of miscellaneous crops, the data in [68] indicate a decline in the per capita production of wheat, oats, barley, rice, buckwheat and rye. This decline in per capita production represented more than just a failure of Southern agriculture to keep pace with the population growth. The same decline in food production is noted when computed on a rural population base.

Table 16. Per capita production of corn and the stock of hogs for the states of South Carolina, Georgia, Alabama, Mississippi, and Louisiana, 1850-1890.

State	1850	1860	1870	1880	1890
A. Per Capita Production of Corn (bushels)					
South Carolina	24.3	21.4	10.8	11.8	11.9
Georgia	33.2	29.1	14.9	15.0	15.9
Alabama	37.3	34.5	17.0	20.2	19.9
Mississippi	37.0	36.7	18.9	18.8	20.3
Louisiana	19.8	23.8	10.5	10.5	11.7
Average, five Cotton States	31.1	29.6	14.7	15.6	16.3
B. Per Capita Stock of Swine (number)					
South Carolina	1.59	1.37	0.56	0.63	0.43
Georgia	2.39	1.93	0.83	0.95	0.75
Alabama	2.47	1.81	0.72	0.99	0.94
Mississippi	2.61	1.94	0.98	1.02	0.90
Louisiana	1.15	0.90	0.46	0.67	0.51
Average, five Cotton States	2.11	1.64	0.73	0.88	0.83

Source: Computed from data in United States Census *Compendium of the Eleventh Congress*, [68], Table 9.

at home ([28], p. 153). The survey of cotton planters taken in 1880 in connection with the Census indicates that this situation was common throughout the South (Hilgard [31]).

To investigate this issue, we found that we required data on tenure, race, and agricultural production which were not immediately available from published sources. These data are contained in the manuscript schedules of the Tenth Census of Population and Agriculture, taken in 1880. These manuscripts list separately every individual and every farm enumerated in the census. By combining the information on the farm operator and his family from the population schedules with the characteristics of each farm from the agricultural schedules, we were able to obtain a cross section of Southern agriculture.³⁷ The results presented below are based on a sampling of a number of counties drawn from the cotton growing region of the South as typical of the area in which they are located. From each of the counties selected, we drew a random sample of at least ten percent of the farms enumerated by the census.³⁸

³⁷It was decided not to attempt an extensive analysis of the 1870 returns for two reasons. First, that Census suffered from a number of deficiencies, particularly affecting the Southern states and the Negro population. A second disadvantage of that Census from our point of view, was the failure of the Agricultural Census to record the tenure of the farm operator. The manuscript reports of population have been retained by the National Archives. For details see Davidson and Ashby [16]. The manuscript schedules for agriculture for fifteen Southern states are available from the University of North Carolina. For details of this collection, see Boone [7].

³⁸For a discussion of the sampling procedure, see Ransom, Sutch, and Boutin [51]; and Ransom and Sutch [49].

The 1880 sample allows us to more carefully examine the fall in per capita production of foodstuffs indicated in Table 16. In Table 17 we present estimates of the total grain output per capita (expressed in corn equivalents) in twelve of the larger counties in our sample where a detailed breakdown by farm size and tenure was possible.³⁹ The data show rather clearly that the small farms suffered a fall in per capita grain outputs. In most cases the 1880 figure is below the low 1860 figure for small farms; only three observations exceed the high 1860 figures.⁴⁰

The fact that farms after the War produced less grain per capita does not prove that they were unable to meet their food requirements through home production. Such a conclusion must rest on evidence of a gap between production and consumption of food crops on the farm. We have therefore constructed estimates of the residual grain surpluses produced by farms in our 1880 sample. Our procedure parallels that of Gallman's study of ante-bellum Southern self-sufficiency [23]. The total food output of each farm is computed in corn equivalents and matched against the estimated requirements for feeding farm animals and seeding crops. Our calculations differ from Gallman's in two important respects. First, Gallman was testing the proposition that Southern farms were self-

³⁹Following Gallman, we converted grains to corn equivalents by multiplying grain output by the following factors: barley and buckwheat, .771; oats, .514; rye, .85; wheat, 1.125; cowpeas and beans, 1.285 (Gallman [23], p. 7).

⁴⁰The apparent rise in per capita grain outputs of larger farms in 1880 is misleading since slaves were included in Gallman's large farm estimate as part of the population, while free labor after the War was not included unless it actually lived on the farm. Other things equal, a per capita figure should be substantially higher in 1880 when computed on this smaller farm population.

Table 17. Grain output expressed as corn equivalents, per capita by size of farm and tenure of operator, regions of the South, 1879.

	Tenants		Owners	
	Under 50 Acres in Crops (bu.)	50 or more Acres in Crops (bu.)	Under 50 Acres in Crops (bu.)	50 or more Acres in Crops (bu.)
<u>South Atlantic</u>				
Nash, N.C.	25.0 (74)	59.7 (4)	30.9 (97)	99.9 (31)
Barnwell, S.C.	26.8 (57)	50.1 (16)	37.5 (41)	78.6 (44)
Twiggs, Georgia	22.8 (36)	35.0 (14)	43.2 (12)	80.6 (16)
<u>Piedmont Plateau</u>				
Taylor, Georgia	23.7 (16)	33.2 (6)	33.6 (25)	85.4 (26)
Cowetta, Georgia	33.1 (75)	60.4 (23)	43.6 (40)	137.5 (50)
Union, S.C.	21.0 (128)	100.9 (21)	31.2 (42)	87.5 (40)
<u>Black Belt of Alabama-Mississippi</u>				
Russell, Alabama	16.1 (139)	55.6 (43)	15.9 (36)	81.2 (34)
Lowndes, Alabama	30.2 (229)	90.0 (42)	32.5 (40)	137.9 (21)
Rankin, Mississippi	24.2 (81)	48.7 (11)	27.6 (79)	100.6 (32)
Pike, Alabama	21.8 (75)	41.6 (19)	34.5 (82)	74.0 (54)
<u>Alluvial Basin</u>				
Tunica, Mississippi	22.6 (41)	157.5 (9)	22.5 (6)	433.0 (11)
Yalobusha, Mississippi	22.1 (78)	42.7 (12)	50.8 (72)	109.2 (32)
Estimated grain per capita in 1860 (Gallman) ^a			30-41	51-61

Note:

The numbers in parentheses are the number of farms in the sample with the given characteristic.

^aGallman [23], p. 7. The estimates are not given by tenure for 1860 and are thus entered in the "owners" columns. The figures represent the range of Gallman's estimates in the size classes.

Source: Computed from data in the manuscript schedules of The Census of Agriculture, 1880.

sufficient. Accordingly, he chose estimates of consumption which were deliberately upward biased. Since we are testing for the absence of self-sufficiency, we have employed lower-bound estimates of requirements. Second, Gallman estimated the consumption needs of both people and animals on the farm. We have chosen to estimate the residual grain per capita left for human consumption. A zero residual or even a small surplus under our calculations could therefore imply a need for added food purchased off the farm.

The most serious obstacle in estimating self-sufficiency is the absence of accurate data on Southern feeding and seeding practices around 1880. The earliest reliable data are those developed for 1909 by the U.S. Department of Agriculture [83]. These are the figures employed for the most part by Gallman. However, they surely overstate minimum requirements in 1880. To obtain lower bounds, we have reduced the USDA-Gallman estimates to approximate what we feel would be minimal levels of feeding.⁴¹ For the seed requirements, we have relied on Seaman's

⁴¹The figures employed in our estimates, and those of Gallman ([23], pp. 10-11) are:

Animal	Gallman	Ransom-Sutch
Horses	38.11	15.0
Mules	38.11	10.0
Oxen	38.11	15.0
Cows	8.99	4.0
Other Cattle	2.60	1.0
Sheep	0.6	0.0
Swine	---	7.5

The requirements for horses, mules, and oxen are adjusted in accordance with observations by Battalio and Kagel ([5], p. 30) that feed requirements ranged from 11.7 to 33.3 bushels for horses and oxen, and two-thirds that amount for mules. The feed requirements for swine were judged from the evidence by Seaman ([58], p. 275, 353) that it took seven bushels of corn to grow one hundred pounds of live pork, and the U.S.D.A. estimate ([82],

1852 figures.⁴² Despite the roughness of these estimates, we find it highly unlikely that food requirements for the Southern farm would be any less. If, using these consumption requirements, there is zero residual remaining for the farm family, it is unlikely that the farm was self-sufficient.

Table 18 presents our estimated grain residuals by farm size and tenure of operator, along with the percentage in each class which produced no surplus grains. In the Black Belt and South Atlantic areas the proportion of small farms with no residual was seldom less than twenty percent and frequently above thirty-five percent. If one considers the need for human consumption (about 15 bushels of corn per year for an adult), the only county with self-sufficient small farms was Cowetta, Georgia. On the other hand, large farms in all of the counties of Table 18 appear to have produced residuals large enough to amply supply their needs. These residuals ignore the stocks of swine which might serve as food. Nonetheless, the estimated surplus grain residuals seem so small in most cases that, unless they wished to slaughter their entire stock of swine in a single year, most farms would have to buy additional food.⁴³

pp. 120-126) that ten bushels were necessary for one hundred pounds of pork in 1909. (See the discussion by Gallman [23], p. 13.)

⁴²Seed requirements, all from Seaman [58], are as follows: Corn, 1/50th (p. 275); wheat, rye, and barley, 1/10th (p. 625); oats, buckwheat, peas and beans, 1/12th (p. 453 and 625). These are the lowest estimates which Seaman cited for these various crops.

⁴³Estimates were computed assuming no corn was fed to hogs. Though the proportion of non-self-sufficient farms fell sharply, the per capita grain residuals were still barely enough to support an adult in all but Barnwell and Cowetta Counties. And, of course, no food would remain to feed swine.

Table 18. Evidence of self-sufficiency by size of farm and tenure of operator; regions of the South, 1879

	Tenants		Owners	
	Under 50 Acres in Crops	50 or more Acres in Crops	Under 50 Acres in Crops	50 or more Acres in Crops
I. Estimated grain surpluses per capita in bushels of corn equivalents:^a				
<u>South Atlantic</u>				
Nash, N.C.	10.6	(32.5)	3.4	41.0
Barnwell, S.C.	11.2	24.2	13.2	35.1
Twiggs, Georgia	9.6	17.6	-6.8	42.0
<u>Piedmont Plateau</u>				
Taylor, Georgia	0.4	(12.8)	1.39	36.9
Cowetta, Georgia	19.7	43.5	18.6	92.2
Union, S.C.	13.1	64.9	13.9	62.1
<u>Black Belt of</u>				
<u>Alabama-Mississippi</u>				
Russell, Alabama	4.2	33.8	-0.96	35.9
Lowndes, Alabama	16.2	61.5	8.8	89.5
Rankin, Mississippi	2.2	13.1	-11.8	23.7
Pike, Alabama	7.0	20.9	2.8	35.2
<u>Alluvial Basin</u>				
Tunica, Mississippi	7.8	84.2	(-57.8)	100.8
Yalobusha, Mississippi	5.5	27.1	18.9	67.7
II. Percentage of farms with grain residents of zero or less:				
<u>South Atlantic</u>				
Nash, N.C.	21.6	(0)	45.3	12.9
Barnwell, S.C.	19.3	6.3	17.1	13.6
Twiggs, Georgia	25.0	14.3	41.7	6.3
<u>Piedmont Plateau</u>				
Taylor, Georgia	50.0	(16.7)	44.0	23.1
Cowetta, Georgia	9.3	0	15.0	6.0
Union, Georgia	10.2	4.8	11.9	2.5
<u>Black Belt of</u>				
<u>Alabama-Mississippi</u>				
Russell, Alabama	33.8	9.3	55.6	11.8
Lowndes, Alabama	17.9	9.5	35.0	19.1
Rankin, Mississippi	43.2	36.4	73.4	18.8
Pike, Alabama	21.3	31.6	47.6	9.3
<u>Alluvial Basin</u>				
Tunica, Mississippi	29.3	11.1	(50.0)	36.4
Yalobusha, Mississippi	35.9	25.0	34.7	9.4

Note:

The numbers in parentheses indicate estimates based on fewer than seven farms in a cell.

^aFor explanation of estimating procedure, see text.

Source: Computed from data in the manuscript schedules of The Census of Agriculture, 1880.

If a lock-in effect is the explanation for the disappearance of self-sufficiency and the increased emphasis on a cash crop, we would expect that it would be the small tenant farmer who was most susceptible to this form of exploitation by the merchant. The large owner would be able to resist control by the merchant because of his access to alternative sources of credit. Accordingly, we examined the acreage planted in cotton as a percentage of the total acreage reported in crops, comparing small tenant farms with large owner-operated farms.

Table 19 presents the results for nine sample counties selected from the Southeastern states as typical of the agriculture of the Atlantic Coastal Plain and the Piedmont Plateau. In every county of the Table, small tenants cultivate a higher percentage of their tilled land in cotton than do the large owners. With the exception of Twiggs County, Georgia, the differential is too large to be dismissed. Table 20 extends the analysis to the Alabama-Mississippi Black Belt and the Lower Coastal Plain of Mississippi. In these two regions the pattern is repeated without exception. Only when we turn to Table 21, which presents data from four counties in the Mississippi Alluvial Basin, do we find a departure from the pattern. Perhaps the alluvial soil stands as an exception because it is unusually suited to cotton culture. The merchant would not need to force the farmer to plant cotton if it proved already economically advantageous to specialize in cotton to the exclusion of food crops. Wright has noted that self-sufficiency before the War did not extend to the fertile Alluvial Regions (Wright [89], p. 231), it is hardly surprising that after the War the Alluvial Region continued to

Table 19. Percentage of total reported acreage planted in cotton comparing small tenants with large owners, the Old South, 1879.

County	Tenants with under fifty reported acres in crops	Owners with fifty or more reported acres in crops
<u>Atlantic Coastal Plain</u>		
Nash County, North Carolina	49.3 (71)	37.4 (33)
Worth County, Georgia	48.1 (18)	31.8 (13)
Barnwell County, South Carolina	46.4 (65)	40.2 (57)
Terrell County, Georgia	51.6 (12)	40.7 (28)
Twiggs County, Georgia	56.8 (36)	53.0 (17)
<u>Piedmont Plateau</u>		
Chesterfield County, South Carolina	37.9 (53)	29.3 (9)
Taylor County, Georgia	47.8 (15)	38.2 (27)
Cowetta County, Georgia	57.4 (85)	45.7 (58)
Union County, South Carolina	56.5 (136)	45.6 (45)

Note:

The numbers in parentheses are the number of farms in the sample with the given characteristic.

Source: Computed from data in the manuscript schedules of The Census of Agriculture, 1880.

Table 20. Percentage of total reported acreage planted in cotton comparing small tenants with large owners in the Central Cotton Belt, 1879.

	Tenants with under fifty reported acres in crops	Owners with fifty or more reported acres in crops
<u>Alabama-Mississippi Black Belt</u>		
Russell County, Alabama	67.6 (152)	53.4 (37)
Dallas County, Alabama	74.2 (144)	64.9 (26)
Lowndes County, Alabama	69.7 (248)	57.9 (25)
Perry County, Alabama	66.0 (115)	51.4 (60)
Clay County, Mississippi	59.7 (82)	47.1 (36)
<u>Lower Coastal Plain of Mississippi</u>		
Pike County, Alabama	53.3 (79)	46.3 (53)
Lincoln County, Mississippi	48.6 (54)	40.6 (16)
Pike County, Mississippi	50.4 (45)	42.5 (28)
Rankin County, Mississippi	62.0 (60)	49.1 (34)
Attala County, Mississippi	55.4 (67)	48.0 (44)
Jefferson County, Mississippi	71.0 (107)	58.4 (14)

Note:

The numbers in parentheses are the number of farms in the sample with the given characteristic.

Source: Computed from data in the manuscript schedules of The Census of Agriculture, 1880.

Table 21. Percentage of total reported acreage planted in cotton comparing small tenants with large owners in Mississippi Alluvial Basin, 1879.

	Tenants with under fifty reported acres in crops	Owners with fifty or more reported acres in crops
Avoyelles Parish, Louisiana	52.0 (58)	49.7 (16)
Tunica County, Mississippi	74.1 (45)	73.9 (12)
Washington County, Mississippi	73.8 (17)	78.9 (25)
Yalobusha County, Mississippi	54.3 (83)	50.6 (32)

Note:

The numbers in parentheses are the number of farms in the sample with the given characteristics.

Source: Computed from data in the manuscript schedules of the Census of Agriculture, 1880

exhibit a pattern of cotton specialization.⁴⁴

The small tenant's emphasis on cotton (outside of the alluvial region) was more than a simple scale effect. An examination of the percentage of land planted in cotton by small *owners* in each of our sample counties reveals no significant differences from the percentages adopted by the large owners. Apparently, the small owner was able to offer his land in mortgage to secure credit and thereby avoid a crop lien and the resulting pressure to specialize in cotton.

In addition to the difference we find between small tenants and large owners, we would expect the illiterate farm operator to be more susceptible to exploitation by the merchant than the farmer who could read and write. Table 22 presents the percentage of land devoted to cotton by small tenants comparing literate with illiterate farm operators in the Black Belt of Alabama and Mississippi; an area where Table 20 indicates that the lock-in effect was particularly pronounced. The sample data does exhibit the expected tendency, however the effect is not as pronounced as that between tenant and owner.

It is difficult to explain the trends illustrated by these tables without recourse to some sort of lock-in mechanism. We would expect that the incentives towards self-sufficiency, in the absence of a credit monopoly, would be greater for the small farm than for the large. Through volume buying, the large farmer could obtain quantity discounts on the purchase of supplies, and was also able to obtain a better price for his

⁴⁴Note that the two alluvial counties in Table 18, have grain residuals below 10 bushels in 1879.

Table 22. Percentage of total reported acres planted in cotton comparing illiterate with literate tenants; Alabama-Mississippi Black Belt, 1879.

	Illiterate Tenants with under fifty reported acres in crops	Literate Tenants with under fifty reported acres in crops
Russell County, Alabama	68.9 (104)	64.3 (44)
Dallas County, Alabama	74.0 (115)	72.6 (26)
Lowndes County, Alabama	71.3 (138)	67.0 (98)
Perry County, Alabama	66.8 (77)	65.1 (37)
Clay County, Mississippi	62.2 (51)	55.6 (31)

Note: The numbers in parentheses are the number of farms in the sample with the given characteristics.

Course: Computed from data in the manuscript schedules of The Census of Agriculture, 1880.

cash crop from the purchasing agent. Small farmers moreover traditionally have been able to increase their security through home production. Self-sufficiency frees them from dependence from an outside source of supply at an uncertain price.

The results from the sample data cannot be explained as an inherent bias produced by the different forms of tenure. The sharing of risk inherent in share tenancy would favor the production of high-risk crops relative to owner-operated or rented farms.⁴⁵ Since there is ample evidence that cotton production in the post-bellum South was less risky than the production of food crops,⁴⁶ we should expect to note higher proportions of corn grown on sharecropped farms than either owner-operated farms or farms leased for a fixed rent. When the data from tenant farms is disaggregated to separate out the sharecroppers, however, exactly the opposite effect is found.

It has been alleged by historians of the slave economy that there existed surplus labor in the South throughout the year except at the time of the cotton harvest.⁴⁷ Under these circumstances, the marginal labor cost in producing corn was quite low. Because of the flexibility inherent in the cultivation of corn, a corn crop could be planted and

⁴⁵This point has also been noted by Chueng [12], Chapter IV.

⁴⁶Our sample of farms illustrates this fact for 1879. In each of the counties sampled the proportional variance in the physical yields per acre for corn were always higher than for cotton. Moreover, throughout the period, farm gate prices of corn fluctuated more sharply than did cotton prices.

⁴⁷Gray [25], p. 702; Phillips [48], p. 125; and Gallman [23].

harvested without seriously interfering with the harvesting of the cotton crop. Since the labor supply was capitalized, any return over the marginal costs of the non-labor input was a contribution towards the fixed costs of labor. In other words, the ante-bellum South was self-sufficient primarily because of the capitalization of labor supply.

With emancipation, it might be argued, this mechanism would disappear. The farmer could hire additional labor at harvest season to aid in the picking and operate with a reduced force during the slack season. The released labor could either find alternative employment during this period or remain idle, as might have been particularly the case with women. The disappearance of self-sufficiency then, might be attributed to the abolition of slavery.

The difficulty which we see with this argument is that it overlooks the fact that with the rise of small family-operated farms, the fixed cost effect would still be felt by the family units. The labor of women and children were a resource of the family farm. If the returns to corn production during slack seasons were sufficiently high the family farm would have no incentive to allow these resources to remain idle. We would expect the small farms to devote a greater relative effort toward the production of corn, if this fixed argument were valid. In fact, we see exactly the opposite: small tenant farms grow relatively less corn than their larger neighbors.

Another argument which might be made to explain the shift toward cotton production would involve increased scarcity of labor relative to

land after the War.⁴⁸ If cotton production were more land-intensive than corn production, then this relative scarcity would produce an incentive to increase the acreage devoted to cotton. Such a shift, would be a rational response to an increase in the price of labor relative to land.⁴⁹

Despite the appeal of such an argument, it remains almost entirely conjectural. There is little evidence that cotton production was more land-intensive than corn production. In fact, the reverse may be more likely, for cotton required substantial labor inputs and corn could be rather casually cultivated. There was, however, a greater possibility of substituting land for labor in cotton than in corn. This would be accomplished by a less intensive harvesting technique. Instead of picking each field three or four times, a one or two pass system would economize on labor. Yields per acre would fall, but yields per hand would rise.⁵⁰

⁴⁸Under slavery Blacks were compelled to work and could not consider any of their time as their own. Once free, they chose to consume a portion of their time in leisure. Women and children, who before the War were used as labor in the fields, opted to remain at home. The men who offered their labor for wages also expressed a preference for leisure which exhibited itself in an unwillingness to work on Sundays and occasionally Saturdays as well, along with a desire for shorter hours than was customary under slavery. See Loring and Atkinson [39] particularly pp. 8-9, 13, 15, 20, 22-23, and 110; "Southerner" [62], pp. 330 and 333-335; Somers [61], p. 59; and Peter [47], pp. 9 and 21.

⁴⁹An extreme form of this argument would be the presence of a "Rybczynski Effect". Rybczynski argued that, in a two-good, two-factor world, an increase in one factor would produce an absolute expansion of the good employing relatively more of the other factor. In the case above, the relative expansion of land would induce cotton expansion at the expense of corn (Rybczynski [54], p. 337).

⁵⁰It is interesting to note that, over the last part of the nineteenth century, yields per acre in corn did rise relative to those in cotton.

Nevertheless, it remains puzzling why a shift in factor prices would have a greater impact on small tenant farms than on owner-operated ones. We find the presence of a "lock-in effect" to be a plausible explanation for the disappearance of self-sufficiency and the concentration on cotton by small tenant farms.

v

This paper has explored in some detail the question of how problems in the development of credit markets in the South after 1865 retarded economic growth in that region for the last part of the nineteenth century. We offered three specific hypotheses to explain why inadequacies in financial institutions developed, and how the resulting inefficiencies in the supply of credit distorted agricultural production.

Our first point, that banks and financial intermediaries were unable to develop in the South, has been recognized for many years. We noted that this failure to develop credit institutions is hardly surprising in view of both the barriers to entry in banking and the nature of credit demands from the agricultural sector of the South.

Our second point, that the merchant-banker gained monopoly power over the supply of credit to Southern farmers is also well known. We find that this acquisition of monopoly power is readily explainable in terms of the high entry costs into rural retailing. Protected by a tight natural monopoly, the merchant was able to gradually develop a monopoly not only of credit, but of provisions and supplies as well.

Our third, and perhaps most significant finding, was that there exists a broad basis for support of the view that the merchant was able to coerce his customers into excessive production of a staple crop in order to reap the profits of selling foodstuffs to the farmer. This "lock-in effect", by fostering a dependence on outside sources of food, seriously altered the composition of output in Southern agriculture.

Of course, credit problems alone can not fully explain the economic backwardness of the South throughout this period. Investment in education, farm reorganization, and race relations all contributed a perceptible influence on the course of Southern economic development. Yet, on the basis of our arguments in this paper, we insist that the inability to develop an efficient supply of credit to small farmers was the dominating factor retarding economic growth in the postwar South. Any explanation of economic trends in the South after 1865 must begin by dealing with this problem. Such a beginning was the purpose of the present paper.

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