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DOCUMENTING MONOPOLY POWER IN THE RURAL SOUTH: THE CASE OF THE GENERAL STORE

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Footnotes to page 1

1/ The Departments of Agriculture in Georgia and Louisiana regularly conducted surveys regarding credit conditions in their state (see the comments in footnote 2 below). The U. S. Department of Agriculture also periodically noted problems associated with credit and cotton in the South. See Dodge [1876], Hemphill [1882], and Watkins [1899]. The Tenth Census commissioned a comprehensive survey of cotton production in 1880 which included detailed investigations of credit considerations in each of the cotton states [Hilgard, 1880]. On several occasions Congress held hearings which inquired into the difficulties of the Southern producers; the most thorough being the Senate investigation into "the present condition of cotton growers in 1894-95" [U. S. Congress, 1895].

The emancipation of slaves and the demise of the plantation system brought about enormous changes in the system of agricultural financing and merchandising in the Southern States. Within the space of only a few years, the factorage system which had functioned so effectively in the Slave era had been swept away and replaced by a decentralized network of small, rural, merchants selling goods and extending credit to small farmers. Although this new system worked to provide credit and supplies to farmers during the growing season, it soon became apparent to contemporary observers that the merchant had a monopoly of credit which enabled him to control the economic life of his customer. As early as 1871, Georgia's Commissioner of Agriculture, Thomas Janes, published statistics pertaining to the merchant credit system which, in his judgment, "should induce a farmer to pause to consider well his footsteps before entering into the whirlpool of credit and debt which has engulfed so many and from which so few have escaped" [Janes, 1871, p. 54]. Over the next three decades state and federal officials continued to assemble and publish evidence which reinforced Janes' warning.[1/] Illustrative of a growing concern over the plight of farmers faced by monopolistic prices for supplies and credit in this period are the remarks of W. N. Jones, in the first Annual Report of the Bureau of Labor Statistics of North Carolina, published in 1887. Commissioner Jones summarized the results of a comprehensive survey of "landlords, tenants, and farm laborers," by saying:

> The mortgage and lien bond system gets more attention perhaps than any other topic, and very properly, because the facts gathered and presented show that more evils have come to the farmers of the State on account of the mortgage and lien bond system than from any other, and indeed from every other source. It has proved a worse curse to North Carolina than drouths, floods, cyclones, storms, rust, caterpillars, and every other evil that attends the farmer [Jones, 1887, p. 76].

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2/ References to the level of credit charges and the implicit interest rates which merchants charged can be found in all of the studies cited in footnote 1 above. The most comprehensive data is that collected by the Georgia Department of Agriculture and reported annually between 1878 and 1890. The Georgia Department collected data from every county in the state on the cash and credit prices charged by merchants on May first for corn, bacon, and fertilizer. This data was tabulated and published in the "Crop Report" for each year. Similar data was also reported by the Louisiana Department of Agriculture in the Annual Reports of the Commissioner of Agriculture for that state between 1886 and 1896.

Elsewhere we have computed the implicit annual interest rate charged by Georgia merchants for sale of corn between 1881 and 1889. We found that the average rate over those years was 59.4 percent [Ransom and Sutch, 1975, p. 419].

3/ The quote is from Holmes [1894, p. 67]. Similar allusions to a state of near slavery can be found in Otkin [1894, p. 11] and to Hammond [1897, Chapter 5].

"What is said in the remarks," noted the Commissioner, "is said from experience and much of it sad experience" [Jones, 1887, p. 75].

The statements by Commissioners Janes of Georgia and Jones of North Carolina--as well as the judgments by other observers of rural credit practices in the South--were based on solid evidence regarding this "sad experience." Particularly significant was the documentation that, throughout the cotton South, an enormous differential existed between prices charged for items paid for with cash and prices for those bought on credit. Implicit interest rates on this credit extended by merchants ranged as high as 100 percent per annum and averaged about 60 percent in Georgia during the 1880's.[2/] Not surprisingly, contemporaries referred to these exhorbitant rates to support their conclusion that the complaints of farmers against merchant monopoly power were justified.

Historians have tended to verify this contemporary impression. Thomas Clark [1943, 1944, 1946], Jacqueline Bull [1952], Glenn Sisk [1955], and Harold Woodman [1966, 1967] have examined rural merchandising in the South in some detail. Although they backed away from endorsing the exaggerated rhetoric of earlier critics of the merchant--some of whom had charged that the new system was tantamount to slavery inasmuch as "the merchants...have replaced the former masters and have made peons of them and of their former slaves"--these studies concluded that general merchants did exercise considerable monopoly power over their customers.[3/] This conclusion was based upon the examination by these historians of surviving records of merchants in business in the South. In addition to supporting the contention that merchants charged exhorbitant rates of interest to their customers, these records suggest that they employed a variety of coercive practices to

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4/ Some of this doubt has been expressed in print. See Decanio [1973], Brown and Reynolds [1973], Higgs [1973] and Reid [1973]. Other expressions of doubt have been communicated privately--with great vigor--to the authors.

5/ This assertion is supported by an examination of the reported "pecuniary strength" and location of merchants cited as sources in the studies by these historians. We located the principal references employed by these writers in the Reference Books of Dun's Mercantile Agency for 1880 and 1885. Both the median level of credit rating and pecuniary strength for the merchants identified were above the median ratings for all merchants in the Cotton Belt. Moreover, the merchants cited in these studies seemed to be located in postal districts with an abnormally large number of general stores. In all, fifteen of the principal references in these works were located in the book.

exploit their monopoly. Storekeepers insisted that the tenant farmer deal exclusively with themselves (thus excluding competition); that the farmer concentrate on cotton production rather than food production (thus increasing the farmer's dependence on the store for supplies); and that the farmer turn the entire cotton crop over to the merchant rather than selling it on their own account (thus insuring that the debt to the merchant had first claim on the proceeds). Notwithstanding this near unanimity of opinion among historians, some doubts exist--particularly among economists--regarding the applicability of a monopoly model to rural general stores.[4/] The idea that very high charges for credit must reflect monopoly exploitation (and hence, monopoly power) is not entirely convincing. Some consideration must be given to the "costs" of extending credit in the rural South; particularly the cost of risk implicitly faced by the lender in such a market. The documentation of coercive tactics rests upon the records of hardly more than a dozen merchants. But such records are certain to have been those of successful stores, which might not have been representative of the typical case.[5/] The contemporaries' rhetoric against the middlemen may simply reflect the (all too common) tendency of agriculturalists to look to a scapegoat when market fluctuations turn against them. Furthermore, those skeptical of monopoly argument point out, the presence of strong monopoly power seems inconsistent with both the large number of independent suppliers in the rural South, and with the continual entry of new stores into the merchandising business.

Such reservations, which are second nature to economists trained in the neoclassical analysis of competitive markets, make it important for the historian to carefully spell out the economic model which lies behind his

analysis of the merchant monopoly. We can begin by rejecting a simple "pure competition" model. There can be no question that the credit charges levied by rural merchants were, in fact, far above "competitive" levels. In a recent article in Agricultural History we demonstrated that even after explicitly accounting for the opportunity cost of funds (about 10 percent), and allowing a generous factor for either default of loans or costs to supervise farmers as a hedge against failure or default, there remained an "excess" and unjustified return of some 25 percent per annum [Ransom and Sutch, 1975]. In the same article we presented a model of coercive behavior by the merchants which assumed that they possessed monopoly power. In the present article, we wish to further demonstrate that it is possible to construct a model of merchant monopoly which employs assumptions consistent with the evidence of merchant practices and rural conditions of the postbellum South while at the same time explaining the paradox of ubiquitous stores and ease of entry failing to produce a competitive result. We also offer new evidence to support our claim that such monopoly power did exist. This new data is the information contained in R. G. Dun's Mercantile Agency Reference Books and the firm's Credit Ledgers. Dun's, a New York firm established before the Civil War, sold information on businesses. The firm pioneered the use of "credit rating," and as early as 1859 began to publish an annual Reference Book which listed the credit rating and the estimated "pecuniary strength" of business establishments. By 1867 the Mercantile Agency had reestablished its network of credit "reporters" in the South, which had been disrupted by the war, and greatly expanded its coverage of retail merchants in response to the boom in this business. Since any firm seeking credit outside their immediate locality had to obtain a credit rating, Footnotes for page 5

6/ The Reference Books were loaned, not sold to subscribers. The only collections which we have located are held by the Library of Congress and by the New York headquarters of Dun and Bradstreet, the successor to the Mercantile Agency. The Credit Ledgers were maintained by hand up to about 1880, at which time the records were switched to another set of books. The volumes are deposited with the Baker Library at Harvard University.

7/ The average farm in the Cotton South had about 150 total acres. Allowing no other use for land, this means that only 4.27 farms could be located in every square mile. In fact, only about 60 percent of the land was in farms, so that a figure of 2.5 farms per square mile would be more reasonable. At that density, 100 farms would cover an area of 250 square miles; a square about 16 miles on a side.

8/ Competition among farm operators would similarly ensure that the owner of the land received the locational rent. In theory, any locational advantages associated with the farm would be capitalized into the value of the land. Thus, a farm operator would have to pay some "cost" reflecting this favorable location.

the agency's Reference Book had become quite complete as early as 1870. In addition to these published books, the handwritten Credit Ledgers contain synopses of the reports sent to the Agency by its reporters in the field. These entries were maintained on a regular basis up to 1880. The information collected by Dun's Agency undoubtedly represents the most extensive, comprehensive, and accurate source of information still available on the network of Southern merchandising after the Civil War.[6/]

An Economic Model of Merchant Monopoly

The seeming paradox of many merchants each with monopoly power is easily resolved by recognizing that stores supplying farmers were not generally situated at sites with more than one or two stores in business. The monopoly of the storeowner was a localized monopoly.

The possibility of a spatial monopoly exists whenever customers are widely scattered over some geographic area and transportation costs are large. The size of farm was sufficient to ensure a scattering of customers in the Postbellum South.[7/] The costs of doing business--especially credit business--over this wide area was considerable in the late nineteenth century. Even a relatively small distance between suppliers represented a considerable advantage to a merchant at one location and a corresponding disadvantage to a merchant elsewhere.

In a competitive situation, where each store had several adjacent competitors to limit any monopoly power, the "advantage" of being near the suppliers would accrue to the landowner. Farms nearer stores would, in effect, gain an economic "rent" as a result of their favorable location, and competition among stores would prevent store operators from expropriating this rent through higher prices.[8/] However, in a situation where only a single store (or perhaps two stores) occupied each location, the gain from being near one store would be partially offset by the disadvantage of being farther from any other store. The nearby store, if it could discriminate, might charge a higher price than a distant rival and still retain the farmer's business. In this case, the "locational" rent would be captured by the storekeeper, since the farmer (and the landowner) would have no alternative source of supply without incurring the additional costs of doing business elsewhere.

If the merchant without adjacent competition chose not to discriminate between his customers on the basis of their location (we argue below that he would not choose to discriminate), then any locational advantage would once again fall to land, and be captured by landowners in the form of higher rents.

With positive costs of transportation, it is easy to show that the market of any given store location will be delineated by some fairly distinct boundary beyond which customers will find it more convenient to shop at another supplier. A simple diagram illustrates the point. Suppose Merchant A is located at 0 and Merchant B at D along the straight road illustrated in Figure 1. The line AA depicts the price plus transportation cost incurred by customers located at any point between 0 and D of goods sold by Merchant A; BB defines a similar gradient for Merchant B. Clearly, any customer to the right of F will find B to be the cheaper merchant; any customer to the left of F will find A to be cheaper. The diagram greatly simplifies the situation (it does not, for example, tell us what price each merchant will find to be his profit maximizing one); however it illustrates the manner in which transportation costs by themselves can introduce monopoly power for a given location.

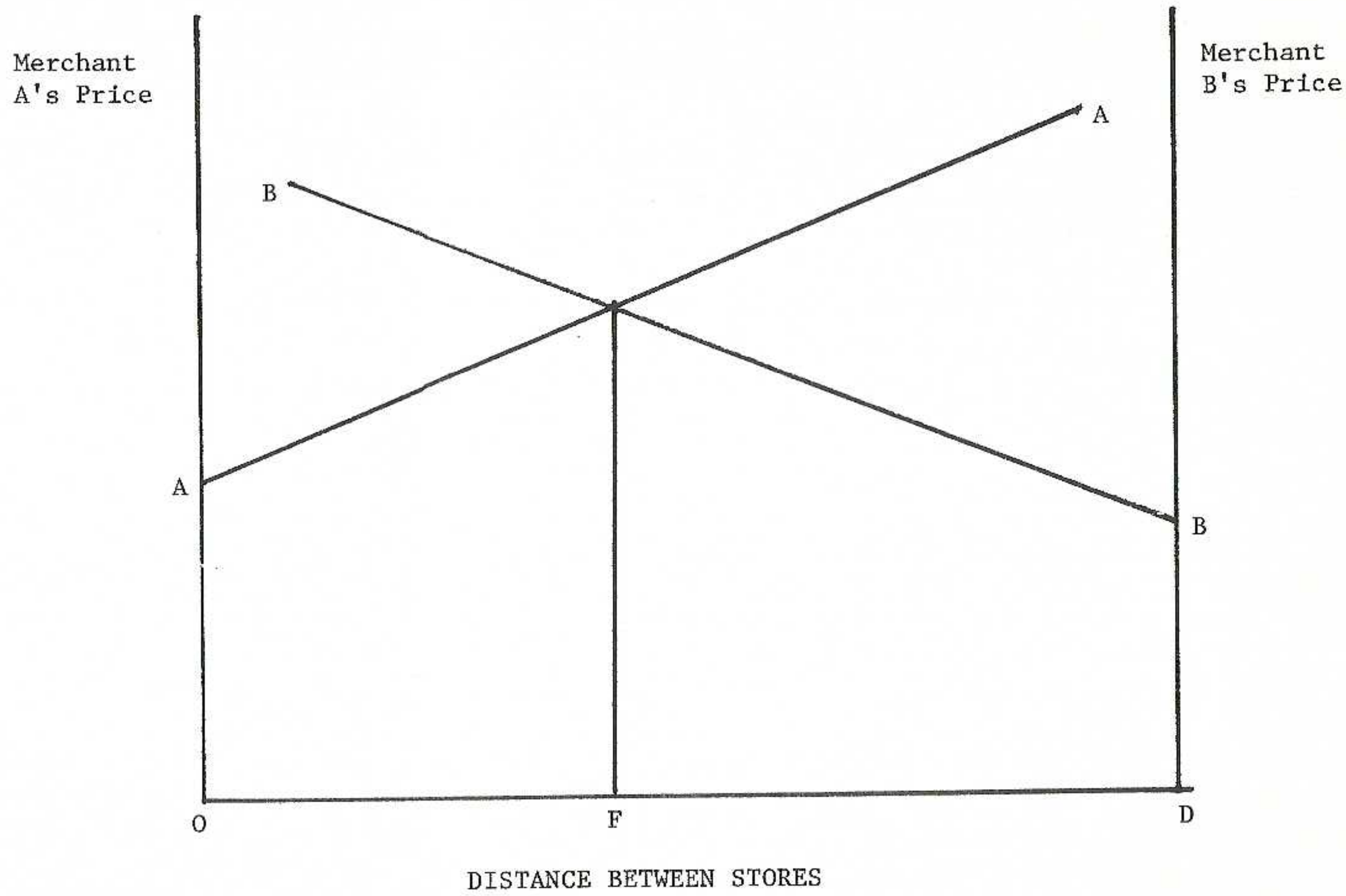
Merchant
A's Price
Merchant
B's Price
A
B
A
B
O
F
D
DISTANCE BETWEEN STORES

FIGURE 1

We have assumed, to this point, that the merchant's price at his store is uniform to each customer and given as a fixed value. Would it prove remunerative for one merchant to lower his price in an attempt to increase his market size? Probably not. To gain revenues from new customers at the fringe of his existing market, he must give up revenues of customers closer in. This will be the case so long as, like most monopolists, the merchant has set his existing price so that the elasticity of demand for his product is less than one. Only if the marginal gains from the fringe customers is great enough to offset this loss would a lower price improve the profit position of an aggressive merchant. And there must be some point at which the net gains from adding more customers on the edge of the market at the cost of lower per unit revenues will disappear. Thus, we know that for any merchant, there is some minimum price which maximizes the net revenue of the store. Once this price is found, the analysis of Figure 1 demonstrates that a well-defined market boundary will emerge between any two merchant locations. It should be noted that this revenue-maximizing price will also be the profit-maximizing price and may (or may not) exceed the marginal cost of providing the goods on credit.

The localized monopoly just described will be stable, since neither merchant A or merchant B would have an incentive to encroach upon the market of the other, even when monopoly returns were being earned by the rival. With a uniform price, expansion could only be obtained by lowering that unit price. Would the merchant then have an incentive to discriminate; offering lower prices to distant customers than those charged to nearby farmers? Again the answer is: probably not.

The business which the merchant monopolized was the business done on

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9/ Since bacon, corn, and other animal feeds were the most common items purchased, self-sufficient farms in the neighborhood could have sold these items for cash, preventing a monopoly in corn. The merchant had a monopoly over credit, not corn.

10/ The "costs" of extending credit over a wider area can be viewed as either an increased chance of default (due to imperfect information, lack of detailed supervision, etc.), or as an explicit cost incurred to lower the chance of either default or failure from mismanagement. These costs were clearly recognized by the merchants at the time. Robert Somers recalls the following conversation with a merchant in Mississippi in 1874:

> Do? We do a great deal. I have three horses riding on saddle--my own one of de best pacers in de country; and when Sunday comes I say to my clerks, "go you dis way and dat," and I go de other and we see how de work is going on..." [Somers, 1875, p. 241].

Edward King made a similar observation regarding the need for merchant supervision of farm customers [1875, p. 274].

credit.[9/] This business involved substantial costs of supervision.[10/] Clearly, the more distant the customer, the higher these costs would be to the store owner extending credit. Given a price established at his store, the net revenue added by customers on the fringe of a merchant's market would decrease as the distance from farm to store increased. Eventually, it must reach zero. At some point, obviously, the merchant would find it unprofitable to attempt to and attract distant credit customers irrespective of the costs of transportation borne by the farmer. Lowering the counter price for customers who traveled a long distance would only exacerbate this tendency. It would cause net returns to decline even faster than in the case of a uniform price and, accordingly, shrink the size of the merchant's domain.

Price discrimination would have other disadvantages as well. It would require more elaborate bookkeeping, and more protracted negotiation with customers. Moreover, by eliminating the locational advantage enjoyed by nearby customers, price discrimination would lower rents on adjacent lands. This loss of rent would not be welcomed by nearby landowners, upon whom the merchants depended for social and political support. And, to the extent that the merchant was himself a major local landlord--a situation frequently observed--his incentive to capture the locational rents through price discrimination would disappear.

Finally, discriminatory pricing as a tactic to lure customers away from nearby merchants was unlikely to prove remunerative. Rival merchants would typically respond by offering similar discounts in an attempt to regain their lost customers. The final result of such competition would be to lower prices to distant customers *without* increasing the numbers patronizing any one merchant. Since a rural store would have only a few nearby competitors, tacit or explicit agreement against such competition between stores would be easy to arrange and maintain. New entrants or existing merchants who attempted to challenge the system could be the target of concerted action by merchants and local landowners; all of whom would have good reason to resist the introduction of price discrimination.

Not all stores enjoyed a totally isolated market. Yet even two or more stores which shared the same location faced limitations on the incentive to be "competitive." Imperfections in the credit market worked to the advantage of the merchant who held an established credit relationship with a customer. The legal restrictions as well as the business relationship which accompanied the granting of credit on a crop-lien presented problems to a storekeeper seeking to bid business away. Once a farmer had signed a crop lien with one merchant, that store had legal title to the crop until the note was paid off. The farmer had no additional security to offer an alternative lender. For the duration of the season--and longer if any debt remained at the end of the year--the customer was committed to a single store.

In theory, the merchant could have offered to buy the crop lien held by a competitor in order to secure the customer for himself, but such an offer was unlikely to have been beneficial to either merchant or debtor. The merchant holding the note would have been willing to sell it only at a price which would have compensated him for the loss of his potential monopoly gains. Thus, the "sale price" of the note would have presumably reflected the potential exploitation which remained. The merchant acquiring the note would have to continue to exploit the farmer, and even then he could expect to earn nothing more than a normal rate of return on his investment. For his part, the debtor would hardly have gained by an exchange of creditors. At best, he would have moved from a situation of exploitation by his present merchant to a similar situation governed by a new creditor. More likely, the new creditor would be even more exploitive than the old.

Because of the costs of carrying on business over any appreciable distance were substantial, the market for any given store would be quite small. This in itself would pose a serious barrier to entry into the market for an outsider hoping to start a new business. Even though the rate of profit earned by the reral merchant might be high, the dollar volume would be quite small. Should entry and direct competition be attempted, the market might easily prove too small to support another store. So long as there were cost limitations to the expansion of a firm's market, the existing merchant was protected by the fact that only a single store could operate profitably within the saml1 area that store served.

With an expansion in the size of the market, however, a possibility for new entrants would arise. When the volume of business within a region expanded because of population growth or a shift away from home production, the costs of granting and supervising credit would expand along with it. If, as we suspect was the case, this process were characterized by rising marginal costs, customers at the fringe of a merchant's territory would become increasingly less profitable. Existing firms might be content to absorb new customers well within their existing market boundaries and give up old customers at the extremes of their markets. New stores, therefore, could best attract a clientelle and avoid conflict with established firms by locating near the "boundary" existing between markets.

Customers lured to new establishments would tend to be those on the edge of a merchant's market--customers from whom he earned relatively little income, and who were viewed as more risky credit prospects in any event. With a growth in the market, the established merchant might not even suffer a loss in the size of his business. He might be quite content to let the more distant customers "get away" in favor of those located nearer his store.

A new venture would, of course, be risky, even in a growing economy. If the total market did not prove to be large enough to support all existing stores--as well as the new firm--then one store would have to disappear. The new entrant would be the most frequent victim of any "war" between stores. This risk of failure acted as a barrier to successful entry which protected the existing stores. So long as the market was not large enough to ensure a reasonable chance of success to the interloper, the established firms could continue to reap their monopoly gains within the territory under their control. When the market was large enough, and the existing stores sufficiently distant from one another, the entrance of a new firm could be successful. Such an intrusion would decrease the number of customers served by existing firms and perhaps induce them to lower prices. However, this process would not bring credit charges down to "competitive" levels, but only to lower, but still monopolistic, levels.

The farmer, on his part, would notice very little change from the arrival of a new source of credit. Quite likely he would receive no benefit at all. If his farm were located near an existing store, the new merchant would typically be too far away to offer much of an alternative. If his farm had been some distance from the existing store, this locational disadvantage would most likely have been reflected in a lower rent for the farm. The establishment of a new merchant close-by would reduce his transportation costs, but this advantage would ultimately be offset by a rise in land rents--or by the higher monopolistic profits which the merchant might extract due to his proximity. So long as store locations were geographically dispersed, the individual farmer was inevitably confronted by some degree of monopoly power.

The fact that markets were small and therefore more susceptible to fluctuation, together with the occasional "wars" which might erupt over market boundaries clearly introduced some degree of risk into Southern merchandising. Yet the dangers can easily be exaggerated. Merchants had significant safeguards against default on the part of borrowers. Liens against the forthcoming crop guaranteed the advances made in the course of the year. Progress of the crop could be closely scrutinized by the prudent businessman, and the farmer's line of credit could be cut off if it became clear that the value of the crop would be insufficient to cover the loans. In fact, the only serious threat to a careful merchant's financial position in the current year was the possibility of a general crop failure in his area. The losses incurred by the merchant as a result of widespread crop failure would be only temporary; he still held the farmer's note, and barring a succession of failures, could expect to make up the unpaid balances in future years.

This model of spatial monopoly is a familiar one. Competition between stores is constrained by the geographic dispersion of both customers and stores, and by the fact that the costs of doing business increased with the distance between store and customer. Some monopoly power is present in any rural merchandising business simply because of the locational advantage of an isolated store. In the Postbellum South, that advantage

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11/ A full elaboration of the conditions in the South which protected the merchant's credit monopoly from encroachment by either other merchants or specialized lenders is beyond the scope of the present paper, which focuses primarily on the locational aspects. Elsewhere, we have elaborated on the problems in the credit market of the Cotton South [Ransom and Sutch, 1972], and the manner in which the Southern merchant influenced the production of farm output so as to maximize the profits from his position [Ransom and Sutch, 1975].

was greatly increased by the cotton farmer's need for credit. Had the store customers been able to deal on a cash basis, they could have limited the monopoly power of a nearby merchant. Their costs of shopping around would consist only of transportation and opportunity cost of their time. The customers requiring a line of credit, on the other hand, were constrained to deal with a single store. And since the merchant incurred increasing costs in granting "accommodation" the further the customer resided from the store, only merchants within a relatively short distance from his farm would be interested in a farmer's business. These costs had the effect of making the merchant's monopoly position very secure, but at the same time they constrained the size of the area which he could profitably exploit.[11/]

This localized monopoly model was constructed to reflect the actual structure of the rural furnishing business as described by contemporaries and modern historians of the postwar South. Although our model is highly simplified, and the discussion very general, it is possible to derive some highly specific features of Southern merchandising which must be present if our reasoning on merchant monopoly is correct. We would like to concentrate on four such features implied by the monopoly discussed above:

1. There should be many general stores scattered throughout each area. Most stores should serve a small, isolated market.
2. Stores should be limited in size, and not exhibit any tendency towards "economies of scale."
3. Expansion of merchandising facilities in response to increased demand should occur through the appearance of new stores. These stores should locate by themselves on the boundaries of existing markets.

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12/ The recorded entries for the most part simply rated the individual's character as "average," "good," etc. Occasionally the comments elaborated enough to reveal just how closely people were observed. "He was a quartermaster in the confed. army & was too honest to make money" noted one appraiser of a merchant in Rankin County, Mississippi. Another was reported to have "...some little means and a very elastic conscience"; while a third was "...close and stingy--rather too fond of lawsuits." Marital relations did not go unnoticed. "Is more interested in finding a wife than credit," claimed one entry about a 67 year old merchant. Finally, a reporter commented on the merchant who was "so securely under woman's petticoat that not a dollar can be forced out of him."

4. Because of high barriers to successful entry, new stores should exhibit a high failure rate; but once established, the rural general store should be relatively secure, and earn at least a normal return to the investors. On average, established stores should do better than the average rate of return in business generally.

It is possible to document the existence of these four features of the rural Southern furnishing business, and for that purpose we turn now to the evidence alluded to in the opening section of this paper: the records of the R. G. Dun Mercantile Agency.

Some Evidence on the Market Structure of Retailing in the Rural South

Dun's Agency maintained a file on virtually every store in the South. Its agents in every county would regularly forward information to the New York Office to be used as a basis for establishing credit ratings. These reports, summarized and collected in the Credit Ledgers [DBCL], provide a wide range of information. The storekeeper's business "capacity"; his personal characteristics; and his financial position; as well as the prospects of his business were entered; at times with considerable candor.[12/] Mention was usually made of the amount of capital invested in the business, together with an estimate of how much the storeowner was worth "clear." Particular attention was paid to any changes in the organization of the firm. New partners entering the firm were recorded, and the effect which their arrival (or departure) might have on the financial position of the firm was duly noted. We have obtained copies of the Mercantile Agency Reference Books [DBRD], which provide a geographical listing of all stores, together with a summary "credit rating" and "pecuniary strength" index, for the four years, 1870, 1875, 1880 and 1885. The Credit Ledgers [DBCL] cover a period from the

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13/ A more detailed definition of the Cotton South is in Ransom and Sutch [1972, pp. 668-669], and the underlying analysis employed to define the sub-regions of the South in 1880 is in Ransom and Sutch [1971].

14/ Any small storekeeper in the South required a credit reference of some sort to secure his goods from wholesalers. Thus, virtually all rural stores were listed by Dun's Agency. We have checked the Agency's lists for 1880 and 1870 against the occupational listings from the manuscript population censuses for 1870 and 1880 in the six counties which are the focus of the data presented below. Only 25 (11.8 percent) of 211 names from the Census lists could not be found in the DBRB or DBCL. An additional 32 names on the Agency's lists were not found in the Census. These comparisons show that the Reference Book lists were quite comprehensive. A further comparison, for the State of South Carolina between a list of stores made by Harry Hammond in 1883 and the 1880 DBRB reinforces the impression that Dun's enumeration was complete [Hammond, 1883].

15/ The actual number of store locations will be understated by this definition, since only the post office address was provided in the Dun and Bradstreet list, not the true location of the store. Occasionally there were notations to the effect that a store was "near" or "x miles from" the listed address, in which cases those stores were treated as isolated locations. An examination of the DBCL convinces us that such notations were almost certainly incompletely recorded in the DBRB.

16/ Elsewhere, we have identified those cities and towns which, on the basis of their population, their banking facilities, their commercial establishments, and their transportation facilities, seemed to be oriented towards the marketing of cotton and the wholesaling trade. A list of these towns is available from the authors. All general stores in these towns have been excluded from Table 1 and subsequent tables except where noted. Dun's did not, of course, restrict their reports to operators of general stores. We have counted as a general store any firm given one of the following designations in the DBRB lists: "general store," "dry goods and groceries," or "dry goods etc."

inception of the Agency's activities in each county (typically around 1850 for the counties we have sampled in the South) to around 1880. The area encompassed by the analysis of Table 1 through 6, which we term the Cotton South, covers a wide swath of counties stretch from North Carolina to the Texas praries.[13/]

The great value of these records lies in their comprehensive coverage of stores in the South.[14/] For any given year, a reasonably complete tabulation of enterprises can be reconstructed, organized on the basis of the post-office address of each store. Our analysis will focus on the years 1870, 1875, and 1880, with some additional data from 1885.

The most obvious point which emerges from a careful examination of the Mercantile Agency data is the dispersion of store locations throughout the South. There were 7,015 general stores listed in the rural Cotton South in 1880, with nearly three thousand separate postal addresses. Table 1 disaggregates the number of stores by the size of store locations (where the size is defined by the number of stores sharing the same post office).[15/] The table excludes those stores which were located in urban areas of the Cotton South, since stores located in these towns were not likely to be catering to the farming community.[16/]

That the general stores were ubiquitously scattered over the Southern landscape is apparent from the data in Table 1. Well over one half of the 2,843 locations had only a single store; 72.9 percent of all locations had only one or two stores. Less than 10 percent of all locations contained six or more stores with the same postal address.

The implications of this number of locations can be demonstrated by assuming that all the locations noted in Table 1 were "ideally dispersed"

TABLE 1: RURAL GENERAL STORES IN THE COTTON SOUTH; 1880[a]

Post Office Addresses with:	Number of Locations	Percentage of all Locations	Cumulative Percentage of Locations	Number of General Stores	Percentage of all Stores	Cumulative Percentage of Stores
One Store	1,597	56.2	56.2	1,597	22.8	22.8
Two Stores	475	16.7	72.9	950	13.5	36.3
Three Stores	257	9.0	81.9	771	11.0	47.3
Four Stores	144	5.1	87.0	576	8.2	55.5
Five Stores	93	3.3	90.3	456	6.6	62.1
6 to 10 Stores	194	6.8	97.1	1,424	20.3	82.4
More than 10 Stores	83	2.9	100.0	1,232	17.6	100.0
Total	2,843	100.0		7,015	100.0	

a/ General Stores in towns and cities defined as "cotton centers" are excluded from this tabulation. See footnote 16.

Source: Reference Book [DBRB] (January, 1880). See text for a discussion of how "general store" is defined, and the determination of a store "location."

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17/ Of course, some of the stores could be located closer together than d, but to do so would mean that other stores would of necessity be located further apart. The hypothetical honeycomb location gives the minimum *average* distance between store locations.

each in the center of a regular hexagon as depicted in Figure 2. Such a configuration would minimize the average distance between any two store locations and thus represent the "best" possible situation which might have faced farmers scattered throughout the region. The minimum average distance between sites, d, can be calculated from the relationship between the side, x, and the area, A, of each hexagon.[17/] We know that

$$(1) \quad x = \frac{d}{\sqrt{3}}$$

and the area of each hexagon is given by:

$$(2) \quad A = \frac{3xd}{2} .$$

So that we can eliminate x and solve for d:

$$(3) \quad d = \sqrt{\frac{2\sqrt{3}\,A}{3}} = \sqrt{1.1547A} .$$

We know that A is 72.6 (206,419 square miles in the Cotton South divided by the 2,843 stores in the Cotton South); thus, we calculate d as 9.2 miles.

In fact, since stores would not be optimally placed, the actual average distance between locations would be larger. Nonetheless, the answer provided by this simple calculation may not be a bad approximation to the actual situation in the South in 1880. The essential condition for the calculation to be reasonable--that store locations and farms be dispersed evenly over the area--seem to have been met. Finally, I should note that the calculation of the minimum distance is not particularly sensitive to a possible undercount in the number of locations, since the parameter d in equation (3) varies with the square root of the average area per store location, A. Thus, even a 20 percent increase in the number of store locations would reduce the minimum average distance between stores by only 0.8 miles.

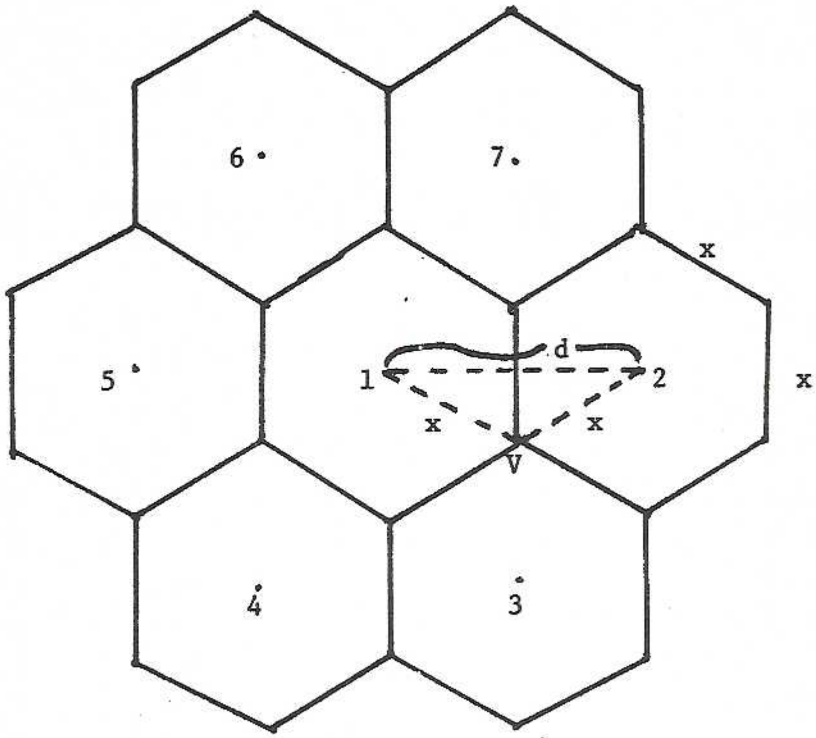

FIGURE 2

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18/ If the farmer were conveniently located on a perfectly straight road connecting two stores, he would require an 18.4 mile round trip. If he were disadvantageously located equi-distant from three stores (i.e., at point V in Figure 1), but still able to travel on straight roads to the first store (equal to a distance of x in the figure), then directly to the second store (a distance of d), then back home again (along a road of length x); the total distance traveled would be 19.8 miles (x=5.3 miles). These calculations are extremely conservative, since no roads in the South were perfectly straight. Robert Fogel, using modern highway maps, estimated that the ratio of "highway distance" to straight line distance is 1.6 [Fogel, 1964, p. 6].

19/ The 27 counties were chosen as representative of the Cotton South for our continuing study. See Ransom and Sutch [1972] for a list of these counties.

An average distance of 9.2 miles between store sites--which is a minimum estimate--implies that the farmer who wished to compare the prices and terms at the two nearest locations would have to undertake a trip of at least 18.4 miles, and probably over thirty.[18/] Since even a twenty mile trip with a wagon and team would exhaust the better part of a day, the ubiquitous country store was not so common as to facilitate competition.

These hypothetical calculations dramatize the fact that markets in the rural South were compartmentalized into relatively small areas of influence, within which each merchant would have exercised considerable control over the market. The first condition for our "model" of monopoly is confirmed by the data.

Our second expectation, that the scale of mercantile operations be small and limited by the absence of economies of scale, is also supported by the 1880 Reference Book of the Mercantile Agency. Table 2 presents the Agency's estimated "pecuniary strength" of general store merchants in 27 representative counties of the Cotton South.[19/] The figures dramatically demonstrate the small scale of general store operations. Nearly fifty percent of all store operators were assigned a net worth of $5,000 or less. Only 7.3 percent of the merchants in our sample counties warranted a rating of $50,000 or better. Since these estimates represent the total estimated net worth of the individual who owned the business, the actual investment in the store would be overstated for any merchants who owned land or held other assets not associated with the furnishing business. The size of a single store is also exaggerated by those cases where a single individual operated more than one store location.

The small net worth of the South's general stores was almost certainly a reflection of their small markets. In addition to the evidence that most

TABLE 2: PECUNIARY STRENGTH OF RURAL GENERAL STORES IN THE 27 SAMPLE COUNTIES FROM THE COTTON SOUTH; 1880

Estimated Pecuniary Strength in Thousands of Dollars [a]	Number of Stores	Percentage of Stores	Cumulative Percentage
Not reported, or Less than 2 [b]	256	36.5	
2 to 5	81	11.5	48.0
5 to 10	137	19.5	67.5
10 to 25	96	13.7	81.2
25 to 50	81	11.5	92.7
Over 50	51	7.3	100.0
All Classes	702	100.0	

Notes:

[a] "Pecuniary strength" is the estimated net worth of the proprietor of the general store as reported by Dun's Mercantile Agency in 1880. In some cases the store owner had other occupations, and his pecuniary strength would include assets not involved in his mercantile operation. Therefore, the Dun's rating should be viewed as an upper limit on the net worth of the store.

[b] According to the key accompanying the Reference Book, concerns which did not have a pecuniary strength reported should be considered as having less than $1,000 of net worth.

Source: DBRB (January, 1880)

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20/ Because stores changed their name so often, it is not possible to use the Reference Books [DBRB] to trace changes in pecuniary strength over time. The data of Table 3, therefore, is based on the entries from six counties for which the Credit Ledgers [DBCL] were employed to reconstruct the complete profile of firms. The six counties are: Gwinnett, Worth and Twiggs, Georgia; Russell, Alabama; Rankin and Tunica, Mississippi.

firms were quite small, data from six of the counties suggests that firms did not normally expand beyond a capital investment of 5 to 10 thousand dollars. Had there been substantial economies of scale, we would expect that some firms would have consolidated and expanded their markets in order to realize these economies. Table 3 presents data on the changes in pecuniary strength of all the stores in these six counties over two five-year intervals.[20/] The table organizes firms according to their pecuniary strength at the outset of each period. The evidence suggests that firms whose estimated net worth was less than $5,000 tended to grow. Sixteen of the 21 small firms which survived the first interval had a higher net worth in 1875; 31 of the 49 firms which survived the second interval between 1875 and 1880 moved to a higher rating. The largest firms, by contrast, did not grow. Only one large firm improved its pecuniary strength over the entire decade. Five of the 15 large firms observed in the two intervals declined in strength. "Optimally" sized firms--those between $5,000 and $10,000--showed no marked tendency with regard to growth or decline. Apparently, it was the case that beyond this relatively modest size there were no economies of scale present in Southern merchandising.

The third implication of the monopoly model which we propose to test regards the pattern of entry of new firms into rural merchandising. In the 27 counties for which data was tabulated from the Reference Books, the number of rural stores increased from 290 in 1870 to 1,254 by 1885. However, the increase in store locations very nearly kept pace. As a result, about two-thirds of the locations had only one or two stores throughout the fifteen year period, despite the great increase in the number of stores. This persistently high fraction of stores located at isolated addresses is certainly consistent with our prediction that new stores would locate in markets not

TABLE 3: CHANGES IN PECUNIARY STRENGTH OF GENERAL STORE OPERATORS IN SIX SAMPLE COUNTIES: 1870 TO 1875 AND 1875 TO 1880

Initial Pecuniary Strength[a]	1870-1875				1875-1880			
	Increase	No Change	Decline	Disappeared	Increase	No Change	Decline	Disappeared
Over $10,000	0	1	2	1	1	5	3	2
$5,000 to $10,000	2	1	0	3	1	2	6	3
Less than $5,000	16	4	1	7	31	15	3	4
All Firms	18	6	3	11	33	22	12	29

[a] The Mercantile Agency distinguished 11 categories of pecuniary strength, ranging from over $1 million to less than $1,000. All of the stores examined fell into one of these 8 categories:

C = $100,000 to $250,000	G = $5,000 to $10,000
D = $50,000 to $100,000	H = $2,000 to $5,000
E = $25,000 to $50,000	K = Under $2,000
F = $10,000 to $25,000	L = Under $1,000

Where no pecuniary strength was reported, the firm was assumed to be worth less than $5,000. A "change" in pecuniary strength is defined as a movement from one of the 8 classes to another. Note that as the pecuniary strength classes become higher, the class intervals rise in rough proportion, so that a change one-step in pecuniary strength can be considered as a doubling in scale regardless of the initial size of the store.

Source: Compiled from Credit Ledgers [DBCL] for six counties: Gwinnett, Worth and Twiggs, Georgia; Russell, Alabama; Rankin and Tunica, Mississippi.

served by existing merchants.

Table 4, which summarizes the entry and disappearance of firms in the six county sample, further substantiates this tendency. All firms which were listed at least once in 1870, 1875 or 1880 have been included. The dramatic increase in general stores is immediately apparent. Thirty-eight firms had been established before the end of 1870, and were doing business in that year. There were an additional 69 firms in 1875 which had not been in business during 1870, and in 1880, 66 stores were operating which had opened their doors after 1875. Thus, a total of 135 "new" entrants appeared over the interval 1870 to 1880.

Of course, not all new stores sought to attract the rural credit customers. Some chose to set up business in the growing retail markets provided by towns such as Buford and Norcross, Georgia; Brandon and Austin, Mississippi; and Hurtville, Alabama. These five towns all emerged as minor centers of the cotton trade during the early 1870's. Fifty-two of the New Stores noted in Table 4--or 39 percent of all new entrants--located in one of these towns.

These stores were not, we suspect, dealing on a credit basis with small rural buyers. Apart from these five towns, a year-by-year examination of new store establishments revealed that 35 stores located at a postal address shared by no other store, and 18 located where they shared a post office address with only one other store. Thus, over the decade, 64 percent of the stores in rural areas situated themselves away from any potential competition.

The final implication of the monopoly discussion was that rural firms should be relatively secure in their isolated markets. One of the striking characteristics, apparent from the data in Table 4, is that a very large fraction--about 30 percent of the firms initially in business--"disappear" by the

TABLE 4: ENTRY AND EXIT OF GENERAL STORES;
SIX COUNTIES: 1870 TO 1880

	Number of Firms Listed or Established in:			Total
	1870	1875	1880	
Firms in 1870	38 a/			38
Disappeared by 1875	11 b/			
Remaining in 1875	27			
New Entrants 1871-1875		69 c/		
Firms in 1875	27	69 d/		96
Disappeared by 1880	6 b/	23 b/		29
Remaining in 1880	21	46		67
New Entrants 1876-1880			66 c/	
Firms in 1880	21	46	66	133

a/ Includes 5 firms organized in 1870.

b/ A firm is considered to have "disappeared" when the entry for that business terminates in the Credit Ledgers. A firm which continues with a revision in the ownership is not considered to have disappeared, but rather to have "reorganized," remaining in business.

c/ The number of "new entrants" includes only those new stores which survived to the end of the five year period.

d/ Includes 14 firms organized in 1875.

Source: Compiled from Credit Ledgers [DBCL] for six counties: Gwinnett, Worth and Twiggs, Georgia; Russell, Alabama; and Rankin and Tunica, Mississippi.

end of each quinquenium. At first glance, such a statistic hardly suggests stability. However, the high rate of disappearance should not be equated with a correspondingly high rate of failure. Many of the disappearing firms did not fail. Table 5 summarizes the explanation given in the Credit Ledgers for the disappearance of the 40 disappearing firms listed in Table 4. Only 15, or about 14 percent of the 107 firms listed in Table 4, were clearly identified as having "failed" or "dissolved." Nine more were listed as "out of business"; a notation which might include any number of possibilities. There is no reason to presume that the remaining disappearances were the result of business difficulties. Nine proprietors had "left" or "moved"; 4 had died or retired; and three files were discontinued without further explanation.

As expected, this risk of outright failure was highest among small firms. Twelve of the 15 failing firms, and all of those described as "out of business," had a pecuniary strength of less than $10,000. The risk of failure was also higher in the early years of operation of the store. The median period in business before failing was only four years in the six county sample. The pressures on the new firm are apparent also in the data of Table 6. All but three of the failing firms were in business no more than five years; one third of them were operating for three or fewer years. The fact that seven of the nine firms whose operators "moved" or "left" did so within three years is also supportive of the difficulty in getting established in a new territory. Table 7, which presents additional evidence regarding the "disappearance" and "reorganization" of firms, shows considerably lower rates of failure and few reorganizations for established firms in the period 1875 to 1880.

Obviously, the merchandising business could be perilous--especially when attempted by a businessman who was under-financed or unacquainted with that

TABLE 5: CAUSES FOR "DISAPPEARANCE" OF GENERAL STORES ACCORDING TO PECUNIARY STRENGTH; SIX COTTON COUNTIES 1870 TO 1880

Pecuniary Strength at Time of Disappearance	Failed or Dissolved	Out of Business	Left or Moved	Died or Retired	Not Given	Total
Over $10,000	3	0	1	0	0	4
$5,000 to $10,000	4	2	0	0	0	6
Under $5,000	8	7	8	4	3	30
All Sizes	15	9	9	4	3	40
Median Number of Years in Business	4	4	3	5	1	4

Source: Compiled from Credit Ledgers [DBCL] in six counties: Gwinnett, Worth and Twiggs, Georgia; Russell, Alabama; Rankin and Tunica, Mississippi.

TABLE 6: CAUSES FOR "DISAPPEARANCE" OF GENERAL STORES ACCORDING TO YEARS IN BUSINESS; SIX COTTON COUNTIES 1870 TO 1880

Years in Business at Time of Disappearance	Failed or Dissolved	Out of Business	Left or Moved	Died or Retired	Not Given	Total
1 Year	0	0	1	0	2	3
2 Years	2	1	4	1	0	8
3 Years	4	1	2	0	0	7
4 Years	3	3	1	0	0	7
5 Years	3	1	0	1	0	5
6 Years	1	0	0	1	1	3
7 Years	0	1	0	0	0	1
8 Years	0	2	0	0	0	2
9 or More Years	2	0	1	1	0	3

Source: Compiled from Credit Ledgers [DBCL] in six counties: Gwinnett, Worth and Twiggs, Georgia; Russell, Alabama; Rankin and Tunica, Mississippi.

TABLE 7: REORGANIZATION AND DISAPPEARANCE OF GENERAL STORES: SIX COUNTY SUB-SAMPLE; 1870 TO 1880[a/]

	Number of Firms	Percentage of: Initial Firms	Remaining Firms
1870 to 1875:			
Firms in 1870	38	100	--
Disappeared by 1875	11	29	--
Unchanged by 1875	15	39	56
Reorganized by 1875	12	32	44
Remaining Firms, 1875	27	71	100
1875 to 1880:			
Remaining 1870 Firms in 1875	27	100	--
Disappeared by 1880	6	22	--
Unchanged by 1880	20	74	95
Reorganized by 1880	1	4	5
Remaining 1870 Firms in 1880	21	78	100
New Entrants; 1870-75	69	100	--
Disappeared by 1880	23	33	--
Unchanged by 1880	25	36	54
Reorganized by 1880	21	30	45
Remaining 1875 Firms in 1880	46	67	100

[a/] A firm is "reorganized" whenever it experienced some rearrangement of ownership. See the text for a further discussion of "disappearance" of firms.

Source: Compiled from Credit Ledgers [DBCL] in six counties: Gwinnett, Worth and Twiggs, Georgia; Russell, Alabama; Rankin and Tunica, Mississippi.

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21/ This leniency is reflected in the reports of Dun's agents on merchants experiencing difficulties. An initial warning that the merchant may be having trouble collecting from his customers would be followed by the possibility that the firm might be "embarrassed." So long as the merchant had past record of payment and was judged of good character, the temporary difficulty did not seem to immediately affect his credit rating in the published lists.

area. When "optimally" sized, established firms did fail, aspects in their business which were only partially related to the provisioning trade were sometimes to blame. For example, the owner of one of the largest firms to fail operated, in addition to his store, a wagon shop, a furniture factory, and a saw mill. A Rankin County operator of a large store was wiped out due to ill-fortune while speculating in cotton futures.

Established firms seldom were forced to quit business as a result of year to year fluctuations in the cotton trade. Firms which were "embarrassed" were usually given a chance to weather the storm before being cut off entirely from their own line of credit.[21/] Even in those instances when the merchant was unable to avoid "compromising" with creditors some fraction of the amount owed, his credit was seldom totally destroyed. At least four of the "failures" were back in business for themselves by 1880, and several others managed to obtain positions with other existing firms in the county.

One of the striking facts to emerge from the examination of the Mercantile Agency Credit Ledgers is the number of organizational changes which occur among stores in the South. Every country store examined in our sample was either a proprietorship or a partnership. Many of these firms also had "silent partners" or other financial backers. Table 7 identifies the number of firms which underwent some form of reorganization between 1870 and 1875 and again between 1875 and 1880. The results underscore how fluid arrangements could be. Of the 27 firms in business during 1870 and surviving through 1875, 12 were reorganized; while 21 of the 46 firms which appeared after 1875 and survived to 1880 were reorganized.

This frequent rearrangement of partners and financial backers might be interpreted as a sign of the weakness of merchants in rural areas. After all,

an obvious reason for such a change would be the need to shore up a financially troubled enterprise. Yet the ease with which new capital could be attracted to such firms, and the number of reorganizations which took place involving successful firms could just as easily imply the opposite. High returns to silent partners could have been a major factor in attracting financial backing of local stores. Moreover, the much lower rate of reorganization in Table 6 for the remaining 1870 firms in the second interval suggests that, once the business got well under way, the need for shuffling ownership to gain new capital diminished substantially.

Partners in country store enterprises were often landowners or had relatives with landed or commercial ties in nearby communities. Because the capital requirements in merchandising were so low, it was easy for a person with even modest means to become a partner in a firm. Nor were entrepreneurs reluctant to move their capital about. A reporter for the Mercantile Agency noted that a family in Russell County, Alabama had "...been in business under different styles and different places for about five years. They have two stores in Seale's Station and a branch at Hurtville." That partners could readily be changed is illustrated by the case of a store in Rankin County, Mississippi, opened by a farmer in 1868, with the assistance of a unknown silent partner. In 1873, when the original silent partner died, a lawyer and a second farmer were added to the firm; the latter remaining only a few years. He was replaced by a planter who, though he had "no interest in the business," added his name to the firm. Subsequently a third silent partner was added. Nonetheless, in 1878 a report noted that the "partners are trying to raise money," and the firm was "dissolved" at the end of that year. It was, however, immediately succeeded by a new business run by one of the "silent partners" who had earlier

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22/ Our research into the information contained in the Credit Ledgers remains unfinished. The excerpts in the text, based on our partial survey of this material, serve to illustrate the sources of capital, the amount of capital, and the financial arrangements which were maintained by storekeepers in the South. Ultimately, we hope to develop this data into a form which can be used to analyze the "success" of rural store location in maintaining monopoly returns over time.

withdrawn. The example is hardly typical of all stores. Yet it points out the ease with which a general store with a good location could attract capital from local men of means. It also illustrates the importance of a location to a store operation. Despite the numerous changes and eventual collapse of the initial partnership, the store continued to offer services uninterrupted throughout the period 1868 to 1879.[22/]

Conclusions

Documenting the presence of monopoly power and its abuse is difficult under the best of circumstances; trying to do so in an historical setting is even more difficult. Our approach in this paper has been to present a model of monopoly and then document the existence of the conditions underlying that model for the Postbellum South. The case against the merchant need not rest there, of course. As noted at the outset of this paper, a strong _prima facie_ case that merchants possessed monopoly power can be pressed simply on the evidence that merchants charged rates of interest for credit which were far in excess of the opportunity cost of capital. The evidence on credit prices, together with the Mercantile Agency data examined above are wholly consistent with our localized monopoly model. The standard "competitive model," by contrast, has considerable difficulty "explaining" these facts. The monopolistic model, then, is superior both in terms of "realism" of its assumptions _and_ as a predictor of events.

Which of the two models is appropriate to analyze the role of the merchant is particularly important when it comes to explaining long term tendencies in Southern merchandising. Any monopolist will try to protect, and if possible enlarge, his advantage over time. A competitive model predicts that he will fail in this attempt. The barriers to competition should be relentlessly eroded away by the pressure of competitors lured by monopoly profits. The spatial monopoly model is less optimistic. In the absence of some external change which alters the cost situation, a merchant should maintain his natural location advantage. If he is able to take some action which might further constrain competition, then the outlook is even more pessimistic.

We are inclined to think that the historical record after 1865 suggests that this last situation is the one which in fact evolved in the South. Afforded an initial advantage by the removal of the financial intermediaries, the rural merchant gradually gained a stranglehold on credit which lasted well into the present century. But that is a much larger story; one well beyond the scope of this article. We will be content here to simply assert that conditions for monopoly in rural merchandising were very much in evidence in the Southern cotton economy around 1880.

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