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Store Wars: The Chain Tax Movement

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STORE WARS: THE CHAIN TAX MOVEMENT

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Revised, July 1984

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STORE WARS: THE CHAIN TAX MOVEMENT

I. Introduction

In the late 1920's and the 1930's almost half the states in the United States passed bills providing for special taxes to be imposed on chain stores. These bills served as one response to the recent chain store revolution that had seen the chains' share of total retail sales climb from next to nothing to about 25% in only a couple of decades. Chains had become particularly important in the grocery business, where by 1929 they did almost 40% of retail grocery sales.

This paper studies the cross-sectional pattern of these taxes, to answer two specific questions. First, why did some states pass chain taxes while others did not? Second, did these taxes have any real effect on chain growth?

To answer the first question I test a simple model based on the economic theory of regulation. This may seem a somewhat ambitious task, given the inherent noisiness of political activity and the fact that we have only 48 observations to work with. Nevertheless, the results indicate that economic variables did play a role in determining which states would pass special chain tax bills. Other results demonstrate that the taxes did have an impact in the grocery trade. This is, of course, not the first test of the economic theory of regulation. Of the existing literature this

research is probably closest in spirit to the work, by Stigler (1971), Smith (1982) and others, that seeks to explain interstate differences in occupational licensing.

The paper is organized as follows. The next section offers a review of the important economic, political and judicial developments leading up to and throughout the chain tax movement. This review is rather detailed, as I think it important that the reader understand the social context in which these bills were passed. They were only a part of a much larger antichain campaign that gave us the Robinson-Patman Act and Fair Trade Laws as well.

The third section presents the models and reports the empirical results. The final section offers a brief summary.

II. The Movement To Tax Chain Stores¹

The late nineteenth and early twentieth centuries witnessed a true revolution in distribution: the distributive trades, retailing and wholesaling, would never be the same. Innovations attributed to this period include department stores, mail-order houses, cooperative retail buying groups, self-service groceries, supermarkets, door-to-door salesmen and chain stores.² Retailing, in particular, was becoming a bigger business with bigger companies owning larger stores selling many more products.

Of all these developments, chain stores must surely be regarded as the most significant. While the basic idea of

the chain store must be ancient, and there are records of a few small American chains in the early nineteenth century, the modern chain store era is usually said to have begun in the late 1850's.³ In 1858 the Great American Tea Company opened its first store in New York City and the next year opened two more. In 1900 this very successful firm was incorporated under the name "The Great Atlantic and Pacific Tea Company" (A&P). Other early chains that were to become major retailers included F.W. Woolworth (founded 1879), Kroger Grocery and Baking Co. (1882) and S.S. Kresge (1885).

While there was substantial growth in chain retailing through the late nineteenth century, by 1900 the share of retail sales going to chains was still very small. Chain growth accelerated in the early twentieth century, however, as Table 1 illustrates. The table reports the number of chain systems and total chain stores in the United States for selected years between 1900 and 1928. Over the 28 year period the number of chain systems grew by more than 28 times and the number of chain stores by more than 26 times.⁴

It is harder to get good data on the share of retail sales going to chains prior to the 1929 Census of Business. Beckman and Nolen (1938 p.245) cite sources that estimated the chains' share of retail sales at 4% in 1919 and 9% in 1926. The most important chains of this period were clearly the grocery chains and their growth was even more remarkable. Table 2 contains some statistics from Barger (1955)

Table 1

Growth of Chain Systems and Stores, 1900-1928

Year	Number of Chain Systems	Total Chain Stores
1900	700	4,500
1905	1,800	8,300
1910	3,000	13,500
1915	5,900	26,600
1920	9,400	49,200
1925	16,800	96,600
1928	20,000	119,600

Source: Federal Trade Commission, "Chain Stores- Growth and Development of Chain Stores", Senate Doc. No. 100, 1932, pp. 63 and 67.

Note: These figures include chains of only 2 and 3 stores.

that illustrate this growth. As recently as 1889 the grocery chain share of total grocery store sales would have been virtually zero but by 1919 it was about a quarter and by 1929 nearly a third. The 1929 Census of Distribution revealed that grocery chains accounted for 26.7% of total chain sales.⁵

Not only was A&P the first of the modern grocery chains, but it was by far the largest chain in the country through this period. In 1900 A&P had about 200 stores, but by 1929 there were more than 15,000 outlets in the chain, earning sales in excess of one billion dollars. Even the second largest grocery chain in 1929, Kroger Grocery and Baking Co., had only about a quarter of A&P's sales.⁶

Table 2

Estimated Grocery Chain Share, 1899-1929

Year	Grocery Chain Share
1899	8.3%
1909	20.4%
1919	25.4%
1929	32.8%

Source: Barger (1955) Table B-6, p.148.

By 1929 chains had become important in a number of other fields. Table 3 lists a number of the leading chains of the day together with the number of stores in each in 1930. Though the chains did lose some ground temporarily in the 1930's and 1940's their share of sales has grown steadily since. Table 4 contains Census of Business chain share data from 1929 to 1977 for selected retail trades.

Obviously, such great institutional changes as the chain store revolution had to come at the expense of many in the established wholesaling-retailing order. Not only were the independent retailers suffering, but so were the merchant wholesalers and other middlemen regularly bypassed by the chains. The larger chains integrated backward, establishing their own warehousing facilities and doing their own wholesaling. At the same time, many manufacturers integrated forward into wholesaling, opening their own branch

Table 3

Size of Major Chains as of December 31, 1930

	Name	Number of Stores
Grocery	A&P	15,738
	Kroger	5,165
	American Stores	2,728
	Safeway	2,691
	First National	2,548
	National Tea	1,600
Variety	Woolworth	1,881
	S.S. Kresge	678
	W.T. Grant	350
Tobacco	United Cigar	994
Drug	Liggett	549
	Walgreen	441
Shoes	Melville	480
	Kinney	319
Department Stores	Montgomery Ward	556
	Sears, Roebuck	347
Apparel & Dry Goods	J.C. Penney	1,452

Source: Federal Trade Commission, "Chain Stores-Growth and Development of Chain Stores", Senate Doc. No. 100, 1932, pp.76-77.

warehouses. By 1939 manufacturers' sales branches had 36.5% of wholesale grocery sales and 25.9% of wholesale drug sales.'

Table 4

Chain Share of Retail Sales, Selected Fields 1929-1977

Field	Year							
	1929	1933	1935	1939	1948	1954	1967	1977
Total Retail	20.0	25.4	22.8	24.0	22.8	23.7	33.9	41.0
Grocery	39.1	44.1	38.8	36.8	37.6	43.3	56.1	65.3
Drug & Prop. Medicine	18.5	25.1	25.7	24.2	21.6	19.9	33.1	52.3
Shoes	38.0	46.2	50.0	49.7	47.5	45.9	47.8	59.1
Variety	90.1	91.2	90.8	87.0	82.9	79.6	81.4	80.8
Department Stores	16.7	23.9	26.7	30.0	51.9	65.6	90.6	96.8

Source: Census of Business, various years.

Notes: i) These chains all consist of four or more stores.
 ii) The Grocery category includes "combination" stores which sell meat as well as groceries.

At one time, when manufacturers were small and retailers smaller, merchant wholesalers formed the biggest link in the chain of distribution. By the late 1920's, however, they were being pinched at both retail and manufacturing ends and they were suffering. The chains' avoidance of merchant wholesalers was almost complete. As early as 1928 about 90% of chain purchases were made directly from manufacturers, growers or agents.⁸ This made wholesalers and independent retailers natural allies in their struggles against the chains.

The established order did indeed fight back and with some success this time. Earlier attempts to resist other retailing innovations had been quite unsuccessful. Not long after the Civil War there had been a movement to tax department stores. Late in the nineteenth century the establishment of parcel post was resisted by those opposed to the new mail-order houses, and after World War I there was resistance to the new door-to-door salesmen.⁹ The greater success independent retailers and their wholesalers had in getting legislative help in their battle against the chains can probably be attributed, in part, to improved organization and to the fact that the chains were simply more threatening.¹⁰

While I want to focus here on the legislative battles, it bears mentioning that many retailers and wholesalers fought back by imitating the chains in important respects. Groups of retailers banded together to form retailer cooperatives, which would do some wholesaling and would often coordinate advertising and other merchandising activities. Wholesalers also organized their own "voluntary" chains of retailers, providing merchants with assistance in advertising, store engineering and other merchandising matters.

Most prevalent in the grocery trade, these organizations provided members with many of the advantages enjoyed by the major chains.¹¹ The Federal Trade Commission estimated that in early 1930 there were 395 cooperative grocery

chains with a total membership of about 53,400 retail stores.¹²

By the early 1920's opponents of chain stores had managed to start a spirited public debate on the "chain store menace". By 1929 local antichain organizations were formed in more than 400 cities and towns in the U.S.¹³ Chains were accused of all sorts of evil, including failing to support local activities, paying less taxes and lower wages than independent retailers, taking money out of their communities and turning the U.S. into "a nation of clerks".¹⁴ A&P had the misfortune to be the focus of much of this antichain activity.¹⁵

In May 1928 the Senate directed the Federal Trade Commission to undertake an extensive study of chain stores.¹⁶ The study produced 33 reports over the next few years and a final summary report in 1934.¹⁷ The Commission's findings were generally supportive of the chains. The Final Report, for example, recommended against taxing away chain store advantages. Nevertheless, the mere fact that the chains were being investigated by the FTC seemed to add fuel to the fire. Public opinion may have been swayed by all of this -- according to a poll taken by the American Institute of Public Opinion in August 1936, 69% of Americans favored special taxes for chain stores.¹⁸

The earliest substantive actions against chains took the form of boycotts of manufacturers and wholesalers who

dealt through such "illegitimate" channels. The trade press revealed the passion of the moment: "Boycott them? Why certainly... They are criminals without the law, a menace to commerce, society and the peace of the world. Boycott them by all means, fair or foul."¹⁹ Since these activities were seldom disguised they resulted in a series of successful FTC and Justice Department actions.²⁰

Eventually the antichain forces came to see the advantages of pushing for legislative relief. The legislative battles were fought on three fronts. Besides the chain store taxes I discuss here, there was the Robinson-Patman Act, designed to discourage manufacturers from granting discounts to chains, and there were state Fair Trade laws legalizing resale price maintenance agreements. The driving force behind the campaigns for the Robinson-Patman Act and the Fair Trade laws was the National Association of Retail Druggists.²¹ The chain tax movement, possibly because it was the earliest, was less well organized. Hundreds of different tax bills were introduced, 225 in 1933 alone.²² The chains were slow to organize resistance too, perhaps feeling that the movement was just a passing fad.²³

To complete an already complicated picture of antichain legislation came the National Recovery Administration Codes of Fair Competition, in effect from 1933 to 1935. The Codes for the distributive trades greatly limited price competition at the wholesale and retail levels and sought to preserve the traditional channels of distribution.

In 1923 Missouri became the first state to consider a chain tax bill. It was a harsh tax, growing geometrically starting with \$50 on the third store, \$100 on the fourth, \$200 on the fifth etc.. It did not pass. There had been some international precedent for such taxes. In 1910 Bavaria adopted a special 5% sales tax for chains and other German states followed. In 1912 France began to levy certain business taxes at a higher rate for chains. The French tax apparently resulted from the efforts of small, independent retailers.²⁴

In the U.S., however, there was concern that such taxes would be determined by courts to be arbitrary and hence in violation of the Constitution's guarantee of equal protection of the law. The key question became: can chains in some way be said to be "different" from independents, so that differential taxation is not arbitrary? Eventually, the U.S. Supreme Court, narrowly, decided that under some conditions they could indeed.

In 1927 13 antichain bills were introduced and three passed in Maryland, Georgia and North Carolina. The Maryland law was the boldest—a flat prohibition on chain store expansion, plus \$500 tax per existing store. This law was quickly ruled unconstitutional and no state has since enacted a similar measure.²⁵

The North Carolina statute levied a license tax of \$50 for each store on chains operating six or more stores in the

state. Georgia's tax also started with chains owning six or more stores in the state, but the amount was \$250 per store. South Carolina's similar 1928 law imposed a fee of \$100 per store on all chains of five or more stores. All three of these laws were ruled unconstitutional. The first to be so decided was North Carolina's in 1928. The decision expressed the view that taxing each store in a chain of six, while not taxing a chain of five stores at all was just too arbitrary.²⁶

Undeterred by these setbacks, the bills kept coming from state legislators. Of the 62 bills introduced in 1929, three were passed: Georgia and North Carolina for the second time, and Indiana for the first. The Georgia law looked like its predecessor but with lower rates and a clause stating that the law involved an exercise of the police powers of the state to control monopoly. It too was struck down.²⁷

The Indiana and North Carolina laws contained a new wrinkle: the tax started with the first or second store. North Carolina's was a flat \$50 per store, with the first store exempted. Indiana's was graduated: \$3 for the first store, \$10 for each additional up to five, \$15 per store from six to ten, \$20 from eleven to twenty and \$25 per store for all in excess of twenty. These laws were challenged in the courts as well, but in 1931 the U.S. Supreme Court sustained the Indiana tax.²⁸ The Georgia tax was sustained shortly thereafter.²⁹ The Court in the Indiana case, in a 5

to 4 ruling, found that there were sufficient differences between chains and independents to permit discriminatory taxation. The rapid growth of chains was cited as "proof enough" that they had certain advantages.³⁰

The decision provoked a flood of new tax bills-525 were introduced between 1931 and 1933 and 18 enacted. Of the bills that did pass their legislatures, most took the graduated license tax form that Indiana had pioneered. Kentucky, in 1930, and several other states shortly thereafter, tried something new. The Kentucky tax was a graduated gross receipts (or sales) tax applied to retailers. The sales of all stores of a chain in Kentucky were to be added together, pushing the chains to higher marginal tax rates. Under the law the first \$400,000 was taxed at 1/20 of 1% and the next \$100,000 at 1/10 of 1%. The rates peaked at 1% for sales over \$3,000,000.

Minnesota (in 1933), and a few other states, passed bills that contained both graduated license and gross receipts features. In its 1935 decision on the constitutionality of the Kentucky law, the Supreme Court ruled that basing tax rates on sales was too arbitrary and that therefore the tax was unconstitutional.³¹ Eventually all gross receipts taxes, whether they stood alone or were combined with license taxes, were struck down.

Florida's 1931 attempt to impose higher taxes on chains operating in more than one county was ruled unconsti-

tutional in 1932.³² Louisiana was more successful with its 1934 innovation. Louisiana's was a harsh graduated license tax that depended upon the total number of stores in the chain, not merely on the number within Louisiana. Thus a large national chain with only one store in Louisiana would pay the highest rate.³³ The rate started at \$10 per store for the first ten stores, but chains with more than 500 stores were required to pay \$550 per store. The Supreme Court ruled the Louisiana tax constitutional in 1937.³⁴

Many of the enacted tax bills exempted chains of certain types. Filling stations, typically numerous but individually very small operations, were frequently exempted. Similarly, the laws usually did not cover the voluntary or cooperative chains.

Beginning with Portland, Oregon in 1931 a number of cities passed local chain taxes, usually of the license fee variety. Most were relatively minor, but a few were truly punishing.³⁵ The cities with taxes tended to be concentrated in states that had passed chain tax bills.

Eventually 28 states passed chain tax bills but only 22 of these states managed to pass bills that withstood court challenges and referenda.³⁶

The Appendix lists all the surviving chain store taxes, giving the marginal tax rates on the first, fifth, tenth and twentieth stores. The table also reveals the top marginal rate for each tax and the point at which it is reached.

Almost all of these taxes were of the Indiana type. The table's footnotes describe the exceptions.

There was considerable variance in the severity of the taxes. They ranged from what must have been minor annoyances (e.g. Montana's 1933 law) to truly substantial levies, as in Texas' 1935 law which had a top marginal rate of \$750 per store reached with the 51st store in the state.

The degree of impact of these taxes should depend, of course, on how large they were relative to the net incomes of chain stores. Table 5 reports average sales per store and net profits per store by retail trade for a large sample of chain stores in 1929 and 1933.³⁷ There, we see that these taxes were doubly punishing for the grocery chains. First, the grocery chains are the largest and so would tend to face highest average tax rates. Second, chain grocery stores are individually less profitable than stores in other chains. A large chain in Texas could lose half its profits in the state to this tax.³⁸

Filling stations reputedly generated even less profit per outlet than groceries, but as indicated earlier, most state laws exempted them. The passage of a tax in Iowa in 1936 that did not exempt filling stations caused refiners to accelerate their leasing programs in that state.³⁹

Grocery chains, needless to say, were never exempted from these taxes. This is consistent with the fact that it was the grocery chains that drew the most fire in the anti-

Table 5

Chain Sales and Net Profits Per Store,
Selected Fields 1929 and 1935

	1929		1935	
	Sales	Net Profit	Sales	Net Profit
Grocery	\$60,882	\$1,694	\$56,402	\$950
Shoe	59,116	3,242	46,682	2,030
Drug	122,133	7,841	125,150	5,569
Variety	184,791	16,237	159,897	12,532

Source: Beckman and Nolen (1938), pp.152 and 154.

chain crusade. It is also consistent with other findings that suggested that grocery chains were the most severely hurt by the passage and early enforcement of the Robinson-Patman Act.⁴⁰

By 1936 the chain tax movement had begun to weaken. Some of the credit for this slowdown must be given to the chains which, in the mid-1930's, took to the offensive. They embarked on an ambitious program of self-promotion that included paid advertisements, speakers' bureaus, radio broadcasts and intensive political lobbying.⁴¹ What was most effective however was their conscription of important allies.

A bumper crop of California peaches in 1936 threatened to seriously depress the prices paid to peach farmers in that state. The major grocery chains moved in, and by

intensively promoting canned peaches, were able to move the crop at healthy (to farmers) prices. Similar campaigns in 1936 and later involved Maine potatoes, beef (a drought had forced a great deal to market), dried fruit, turkeys and grapefruit. Chains outside the food trades got involved as well by promoting National Cotton Week.⁴² Each of these campaigns won the chains more friends.

As recently as 1937 the American Federation of Labor (AFL) had publically criticised the chains. A&P reversed this attitude quickly with a series of generous collective bargaining agreements signed in 1938 and 1939.

For whatever reason, public opinion was moving in the chains' favor too. A poll conducted by Fortune magazine in February 1939 indicated that only 37.3% of the respondents favored special taxes for chains. This was down from over 50% two years earlier.⁴³ The New York Times in January 1939 also noted the shift in public sentiment.⁴⁴

This increased support may have come just in time as on February 8, 1938 Wright Patman introduced a devastating Federal chain tax bill into the House, with 74 co-sponsors.⁴⁵ Reintroduced in early 1939 as H.R.1, Patman claimed on August 5, that 150 Representatives had pledged their support.⁴⁶ The "Death Sentence Bill" was sent to the Ways and Means Committee which finally began hearings in March of 1940.

The bill proposed a graduated license tax that exempted chains of less than nine units. Chains with more than 500 units would pay \$1,000 per store if all the stores were in one state. If the chain had stores in more than one state however, the tax liability was to be multiplied by the number of states in which the chain operated. This clearly would have closed the large national chains and this was Patman's objective.⁴⁷ Table 6 illustrates the impact the tax would have had if imposed on selected chains in 1938. Most striking is A&P's tax bill of \$471 million in a year in

Table 6

Tax Liability in 1938 Under Patman Federal Chain Tax

Company	No. of Stores	No. of States	1938 Earnings	Tax
A&P	12,000	40	\$9,119,114	\$471,620,000
Kroger	3,992	19	3,741,569	71,867,500
Penney	1,541	48	13,739,160	63,912,000
Walgreen	510	37	2,067,846	11,118,500
Kinney	328	37	151,503	5,420,500
Mangel	106	27	18,674	626,400

Source: Lebhar (1963), p.257.

which its earnings were only \$9 million.

Even a relatively small apparel chain like Mangel Stores (106 stores) would have been decimated because its stores were scattered through 27 states.

To his credit, Patman opened the 1940 hearings by suggesting that the tax be cut in half and that chains be given seven years to liquidate before the tax was applied. The hearings produced testimony on behalf of the chains by organized labor, farm groups and women's groups. The Administration opposed the bill, as well.⁴⁸

On June 17, 1940 Chairman McCormack announced that his subcommittee had decided not to report the bill favorably. Patman introduced his bill again in the next Congress but it went nowhere; the proposal was dead. In fact, by the early 1940's the entire chain tax movement was all but dead. No new states enacted chain taxes and most old taxes were either repealed or left to be shrunk to unimportance by inflation. As of 1980, only six states still had chain tax laws, none of them very harsh.⁴⁹

The Census figures in Table 4 would seem to indicate that the chains have recovered from this antichain episode. Since the late 1940's the chain share of total retail sales has been steadily climbing. By 1977 it had reached 41%.

The entire antichain crusade of the 1920's and 1930's would seem to offer an early example of regulation followed by deregulation.⁵⁰ Independents won support for their cause initially, as states passed these taxes and fair trade laws while the Federal government provided the Robinson-Patman Act.

All of this was not enough to halt chain growth, however, and with time the chains and their supporters have reversed these setbacks. The taxes have been repealed, fair trade is dead and the Robinson-Patman Act is barely enforced.

Two natural questions arise from this historical review. First, why did some states not pass chain store tax bills while others did? Second, did these taxes have any appreciable effect on any category of chain store? It is toward answering these questions that the next section is directed.

III. The Cross-Sectional Pattern of Taxation and Its Effects

We have seen that during this chain tax episode, 1927-1941, 28 states passed chain tax bills and 22 of these passed taxes that withstood the challenges of courts and referenda. My objective here is to build and estimate a model that will explain the observed cross-sectional pattern of these taxes.

Two principal theories dominate discussions aimed at explaining legislative activity.⁵¹ The public interest theory argues that legislators do what they perceive, rightly or wrongly one supposes, to be in the best interests of their constituents. Market interventions are intended to

correct market failures. In the present case, the theory would argue that in passing these tax bills state legislatures were expressing their very real concerns about the "chain store menace".

The economic theory of regulation maintains that legislators, as self-interested as the rest of us, use their political activity to maximize political support.⁵² They would therefore respond to pressures brought to bear by well organized, highly motivated interest groups. This theory explains the chain store tax bills as victories for the antichain forces (independent retailers and wholesalers) in their tug-of-war with the chains.

While the model estimated here is really based on the economic theory, it will give us an opportunity to pit the two theories against each other in an interesting way.

The economic theory tells us that there is both a demand for legislation and a supply of legislation. In the case studied here, the net demand for chain taxes results from the pro-tax lobby on the part of independent retailers and wholesalers, and the antitax resistance of the chain stores. I have in mind a simple model in which the probability that a state passes a chain tax bill is, first, some function of the relative "power" of these two sides. The probability will depend, as well, on certain other variables that may affect a politician's interest in supplying, and ability to supply, the requested legislation.

Ideally, the function estimated would include all sorts of variables that may determine each interested group's influence. The numbers of chain stores, independents and wholesalers; their average sales and other characteristics of their size distributions; the locations of chain store headquarters; all could conceivably play roles. Unfortunately these variables are highly collinear with each other and 48 observations are not enough to sort out all the effects.

It therefore became desirable to select a single variable that could, it was hoped, measure the relative strengths of the two groups in each state. Two candidates were tested. The first is simply the share of total retail sales in each state done by chains of four or more stores. Recognizing that the debate over chain store taxes meant a great deal more to those in the grocery trades than to others, the second measure is the share of state retail grocery sales going to chains.⁵³

These share variables are included among the explanatory variables here because it is felt that the larger chain shares should make the chains more powerful politically, and therefore more able to resist special taxation. It is interesting that the public interest theory might also argue for chain share to be an explanatory variable, though this time its expected effect would be reversed. If legislators were only responding to the chain menace, we would expect

more taxes in high chain share states where this menace was, presumably, greatest. Thus, the sign on the share coefficients will serve as a test of the competing theories.

Three other independent variables were included in the regressions. They are supposed to have some effect on a legislature's interest in supplying a chain tax. The first is a measure of the per capita debt in the state. During the depression the chains represented one group that was doing relatively well. This would make them attractive targets for the redistributive inclinations of legislators that Peltzman (1976) noted. The more dire the states's financial condition the more eager legislators should be, *ceteris paribus*, to pass this new tax bill.⁵⁴

The second is a measure of how important the biggest chains were in each state. A tax on a national chain imposes costs spread to shareholders all over the country, while taxes on local chains are borne (more likely) by state residents. Thus for a given chain share, a higher proportion of chain stores belonging to very big chains should lead to a higher probability of a tax bill passing.

Finally, I included a variable to account for the differential treatment of chain stores by the two major political parties. Not intended as a measure of political ideology, this variable merely recognizes that the two parties may serve somewhat different constituencies.

To define these variables precisely we need to pick a year from which to draw the data. Collinearity problems precluded our using more than one year for any particular variable. To minimize the simultaneity problem that would result if we used data from the middle (or later) years of the 1927-1941 period, we would like to have data from the year just prior to that in which the first chain tax laws were passed. While this is not possible, I have tried to get the earliest data available.

The share data come from the 1929 Census of Business:

$$\text{SHARE}_{29,i} = \frac{\text{total sales of chains of four or more stores in state } i \text{ in } 1929}{\text{total retail sales in state } i \text{ in } 1929} \times 100$$

$$\text{GROCERY}_{29,i} = \frac{\text{total sales of chains of grocery and combination stores in state } i \text{ in } 1929}{\text{total grocery and combination store sales in state } i \text{ in } 1929} \times 100$$

The earliest debt series available was for 1932.⁵⁵ For this variable it seemed that a better measure of the extent of a state's debt would involve dividing per capita total state and local debt by state per capita income.⁵⁶ Thus we have:

$$\text{DEBT}_i = \frac{\text{total state+local debt per capita in state } i, 1932}{\text{per capita personal income in state } i, 1932}$$

From the FTC Chain Store study we can get the proportion of chain stores operating in each state that belong to chains of 501 or more units in 1928.⁵⁷ This variable I call BIGCHAIN.

$BIGCHAIN_i =$ (proportion of chain stores operating in state i that are part of chains of 501 or more stores, in 1928) X 100

Unfortunately, the data do not exist to create a grocery counterpart to $BIGCHAIN$.

Constructing a single variable to measure the relative influences of the two major political parties throughout this period is not simple. During the early 1930's state after state turned Democratic; in most states by 1933 the governor was Democratic and both legislative chambers were controlled by the Democrats. To measure the extent of Democratic control in each state, we created a dummy variable REP which equals one if, through the period 1927-1933, the Democratic party failed to win control of the governorship and both state houses.⁵⁶ The expectation is that, to the degree that party matters, the Democrats of this period would be more inclined to favor chain taxes. In all but one (Minnesota) of the $REP=1$ states, it was the Republican party that shared control.

$$REP_i = \begin{cases} 1 & \text{if the Democratic party in state } i \\ & \text{through the period 1927-1933 was never} \\ & \text{able to gain control of the governorship,} \\ & \text{State House of Representatives and} \\ & \text{State Senate} \\ 0 & \text{otherwise} \end{cases}$$

It must be remembered, of course, that a variable like REP doesn't just tell us something about the state's politicians -- it tells us something, as well, about the state's voters.

I begin the analysis by considering the effect of these independent variables on two different binary dependent variables. One indicates the passage of any chain tax bill, the other the passage of tax bills that survive court challenges and referenda.

$$CT1_i = \begin{cases} 1 & \text{if state } i \text{ passed any chain tax bill} \\ 0 & \text{otherwise} \end{cases}$$

$$CT2_i = \begin{cases} 1 & \text{if state } i \text{ passed a chain tax bill that} \\ & \text{survived} \\ 0 & \text{otherwise} \end{cases}$$

To the extent that legislators have any foresight about the constitutionality of the laws they pass, one has to wonder what it means to pass bills that are struck down. Kentucky, for example, passed a number of chain tax bills but none of them survived. What were these legislators doing -- they had a number of Supreme Court approved models to work from, yet all their attempts failed.⁵⁹

The economic theory would predict a negative relationship between CT1 and CT2 and the chain share variables. The public interest theory would predict a positive relationship. DEBT and BIGCHAIN should exert positive influences on the likelihood of a tax, and REP's likely effect is negative.⁶⁰

The results of the logistic regressions are reported in Table 7.⁶¹ All variables have the signs predicted by the

economic theory. The model does a better job of explaining CT2 than CT1, and it works better with GROCERY29 than with SHARE29. It would appear likely then that the real chain tax war was fought in the grocery trade.

Table 7

Logistic Regressions Explaining CT1 and CT2
t-ratios in parentheses

Independent Variable	Dependent Variable			
	CT1		CT2	
Intercept	1.444 (0.80)	0.735 (0.50)	0.417 (0.22)	0.082 (0.05)
SHARE29	-0.113 (-1.28)		-0.095 (-1.01)	
GROCERY29		-0.050* (-1.36)		-0.056* (-1.40)
DEBT	1.782 (0.83)	1.873 (0.88)	2.991* (1.34)	3.123* (1.37)
BIGCHAIN	0.017 (0.98)	0.026 (1.26)	0.013 (0.72)	0.024 (1.12)
REP	-1.259** (-1.80)	-1.268** (-1.80)	-1.565*** (-2.16)	-1.596*** (-2.17)
Model χ^2	7.84	8.05	12.55	13.58
P	0.098	0.090	0.014	0.009

* significant at 20% level of confidence
 ** significant at 10% level of confidence
 *** significant at 5% level of confidence

Even in the best regression, CT2 with GROCERY29, the

t-statistics are generally not very large. BIGCHAIN in particular is not very significant. While REP is significant at better than the 5% level, DEBT comes in at about the 17% level and GROCERY29 does only slightly better.

As one might suspect, there is evidence that the true relationship between the tax and share variables has an inverted-U shape. Re-estimating the CT2-GROCERY29 equation adding the square of GROCERY29 revealed this shape, with a peak at a grocery share of about 27%.⁶² Thus, it would appear that when chain share is very low there is less interest in taxing the chains. This is, presumably, due to the fact that in such states the chains constitute much less of a threat to their competitors and are much less attractive as a source of revenue to the state.⁶³

Marginal probabilities can be calculated by multiplying the estimated coefficients in Table 7 by the variance of the dependent variable. The variance of CT2 is approximately 0.248. Thus we find that a ten point rise in GROCERY29 reduces the probability of a tax (of the CT2-type) by about 14%.

There is quite clearly a strong regional pattern to these taxes. Many of them, for example, are found in the Southern and Mountain states. Lacking any theory explaining why region should matter, I nevertheless re-estimated the equations of Table 7 with regional dummy variables. The results produced no significant coefficients.

Recognizing that we have a lot more information about these taxes than just whether or not they were passed, it seems natural to use this model to explain the severity of the tax as well. The measure of severity I use here is the top marginal rate of the tax function. The top rate always begins with a small enough number of stores that the major chains will face this as their marginal rate. This, then, is the single number in the tax schedule that the major chains must have cared about the most. This variable is called TOPRATE.⁶⁴ If a state revised its tax schedule sometime in the 1930's, TOPRATE is defined as the highest top rate of the period.

The results of the OLS regressions in which TOPRATE was the dependent variable are presented in Table 8. They are not much changed. All the signs are the same as they were, though the significance of the coefficient on BIGCHAIN fell. Of some interest is the fact that the coefficient on DEBT is much more significant. This suggests that DEBT may have been more important in determining the harshness of a tax than in determining whether or not there would be a tax at all.

I have also looked at the patterns of voting on these tax bills within a few state legislatures.⁶⁵ The patterns would appear to be consistent with the regression results reported here. Chains were largely an urban phenomenon and in general, state legislators representing large urban areas

Table 8

OLS Regressions Explaining TOPRATE
t-ratios in parentheses

Dependent Variable = TOPRATE

Independent Variable	Regression	
	1	2
Intercept	91.219 (0.71)	106.641 (1.06)
SHARE29	-3.706 (-0.61)	
GROCERY29		-3.743* (-1.45)
DEBT	292.465*** (2.28)	292.659*** (2.34)
BIGCHAIN	0.419 (0.33)	1.329 (0.93)
REP	-88.290** (-1.72)	-88.255** (-1.76)
R ²	.26	.29
F	3.68	4.26
Prob>F	.012	.006

* significant at 20% level of confidence
** significant at 10% level of confidence
*** significant at 5% level of confidence

made up a disproportionately large share of the opposition to these taxes. In the Indiana State Senate eight of the eleven votes in opposition to the 1929 bill came from sena-

tors representing large (i.e. populations of 100,000 or greater) cities.⁶⁶ In the Illinois Senate, State Senators from Cook County (Chicago and its suburbs) opposed a tax bill five to three though the Senate collectively passed the bill 19 to 11.⁶⁷

The same model that predicts the passage of these tax bills should be able to predict their repeal. As the chain systems continued to grow despite these taxes the results in Table 7 do suggest that opposition to the taxes should have grown and become effective at winning their repeal. In fact, according to the CT2-GROCERY29 regression in the Table, three of the first four states to repeal should not have had taxes in the first place. The estimated probability for Maine (repealed 1937) was .28, for Wisconsin (1939) .31 and for Minnesota (1940) .41. Of the early repeal states, only Arizona (1933) was predicted to have had a tax, and that estimated probability, at .54, was borderline.

While no formal analysis of repeal is undertaken here, some interesting results are reported in Table 9. For the states for which we could collect the necessary data, the Table reports an updated estimated probability using the coefficients of the CT2-GROCERY29 regression in Table 7, but updating the values of DEBT and GROCERY29 to 1950's levels. The DEBT numbers are from 1957 while the GROCERY data came from 1954.⁶⁸ The Table also indicates the actual year of repeal. While the estimated probabilities may appear so low

Table 9

Revised Estimated Probabilities of CT2-Type Tax

State	Original Estimated Probability	Year Of Repeal	Revised Estimated Probability
Florida	.93	1953	.25
Georgia	.37	1951	.30
Idaho	.70	1949	.29
Indiana	.57	1963	.37
Iowa	.37	1979	.10
Michigan	.62	1968	.51
Mississippi	.90	1977	.58
South Dakota	.79	1955	.37

as to make one wonder why repeal came so late, we must remember that very seldom after the 1940's were these taxes ever raised, so inflation was already repealing them, bit by bit.

We turn now to consideration of the effects of these taxes. Did they serve to retard chain growth? And if so, how large was their effect? Here we use another very simple model to explore these questions.

To begin, we simply regressed SHARE39 on SHARE29, CT2 and CT1F, and GROCERY39 on GROCERY29, CT2 and CT1F. SHARE39 and GROCERY39 are the 1939 counterparts to SHARE29 and GROCERY29. CT1F_i is another dummy variable, this time equalling one if state i passed a tax (i.e. CT1_i=1) but it failed to survive (i.e. CT2_i=0). Thus CT1F=CT1-CT2. CT1F

is included to see if the failed taxes nevertheless had some effect.

While this might seem to be a terribly naive model, it is not clear what other variables could be included to help explain the 1939 share variables. In a separate regression attempting to explain SHARE29 it was found that state per capita income and the proportion of the state's population living in urban centers together explained about 65% of the variance of the dependent variable.⁶⁹ However, including the changes in these two variables into the regressions explaining SHARE39 and GROCERY39 added nothing to the power of the model.

The results of these OLS regressions are reported in the first and third columns of Table 10. Notice first the magnitude and significance of the coefficients on SHARE29 and GROCERY29. Both are significantly greater than zero but significantly less than one. Thus, the low share states were catching up to the high share states.

As we would expect, the failed taxes had no effect on either share variable. Similarly CT2 had no significant effect on SHARE39 though its coefficient is negative. The presence of a tax does seem to have had a substantial impact upon the grocery chain share, however. The coefficient on CT2 is very significant and it suggests that a tax lowered GROCERY39 by almost four points.

Table 10

OLS Regressions Explaining SHARE39 and GROCERY39
t-ratios in parentheses

Independent Variable	Dependent Variable			
	1	SHARE39 2	GROCERY39 3	4
Intercept	8.407 (6.04)	8.222 (6.19)	12.949 (6.46)	12.124 (6.46)
SHARE29	0.714*** (9.66)	0.722*** (9.77)		
GROCERY29			0.651*** (12.16)	0.656*** (12.38)
CT2	-0.320 (-0.51)		-3.907*** (-3.21)	
CT1F	0.653 (0.70)		-0.505 (-0.28)	
TOPRATE38		-0.0004 (-0.26)		-0.010*** (-2.88)
R ²	.69	.69	.81	.81
F	33.41	49.21	62.01	93.87

* significant at 20% level of confidence
 ** significant at 10% level of confidence
 *** significant at 5% level of confidence

Note: Prob>F is less than .0001 for all 4 equations

These results offer still more evidence that the battle against the chains was, for the most part, a battle against

the grocery chains. Just as earlier research has shown that the Robinson-Patman Act was most damaging to these chains, these regressions make clear that these taxes did impact more seriously on the chain groceries than on the average chain.

To account for the differential impact of more and less harsh taxes, we constructed still another tax variable. TOPRATE38, is the value of the top marginal tax rate for state i in 1938. In all but three cases this is the same as TOPRATE.⁷⁰ Under the assumption that the chains adjust to the taxes quickly, it is the tax in effect in 1938 and 1939 that will have the most bearing on SHARE39 and GROCERY39. No state changed its TOPRATE in 1938.

The second and fourth columns of Table 10 report the results from OLS regressions using TOPRATE38 in place of CT2. Again, they are not much changed. TOPRATE38 has a significant, negative coefficient in only the GROCERY39 equation. Each \$100 of TOPRATE38 appears to lower GROCERY39 by about one point.

Since these taxes did appear to have some impact upon grocery chain shares it is quite possible that some of the tax burden was borne by consumers in the form of higher prices for groceries. There was considerable evidence produced in the 1920's and 1930's that chain groceries charged lower prices than their independent competition. Indeed, this was said to be their principal advantage over the inde-

pendents who frequently provided more service.⁷¹ In the set of studies reviewed by Beckman and Nolen, grocery chain prices ranged from 5% to 14% below independent prices.⁷²

The taxes will have had a direct effect on the prices paid for groceries simply by altering the proportion of purchases made at the lower (chain) prices. Let the average price paid be defined by the index

$$P^* = P_c CS + P_I(1-CS)$$

where P_c is the price charged by chains, P_I is the price charged by independents and CS is the share of sales going to chains. Then if $P_c = .9P_I$ and the typical tax reduced CS by 4 points, this index would grow by about four tenths of a per cent as a result of the tax.

It's true that this is a small impact but there may have been an important indirect effect as well. If the taxes, by discouraging chain entry and growth, reduced the intensity of competition, they may have served to raise both P_c and P_I , and the total effect could have been much more substantial.

This problem of estimating more precisely the effects of the taxes on grocery food prices is left for further research.

IV. Summary and Conclusions

By the late 1920's independent retailers, particularly grocers, had a serious cause for concern. From only the turn of the century, chain store systems had increased their share of retail sales from next to nothing to about 20% (in 1929) and there was no sign that their growth was slowing.

Their demands for legislative protection were met, at least in part, by local, state and federal governments. However, the relief provided, in the forms of the Robinson-Patman Act, Fair Trade laws and chain store taxes, was simply not enough to halt, let alone reverse, the institutional changes being brought about by the dramatic innovations in distribution. In time, the balance of power shifted and the movement to deregulate began to enjoy some success. Taxes were repealed, fair trade died and, most recently, enforcement of the Robinson-Patman Act all but stopped.

This paper has focused on one element of the antichain crusade, the special taxation of the chain systems. The major findings reported here can be summarized as follows:

(1) The economic theory of regulation found support in the results of our first set of regressions. They offered more evidence that the real struggle was in the grocery trade: the share of retail grocery sales done by chains was negatively related to the probability a tax bill was passed. Debt had a positive influence on the probability, while states with some Republican control were less likely, *ceteris paribus*, to pass special chain tax bills.

(2) While the taxes appeared to have had little impact on the share of total retail sales done by chains, there was a significant negative effect on the grocery chain share. As there is considerable evidence that the grocery chains were a procompetitive force leading to lower food prices, these taxes could well have served to raise food prices.

NOTES

¹ For more on the history of this period as it relates to distribution, the interested reader is directed to Palamountain (1955), Lebhar (1963), Lee (1939), Fulda (1951) and Beckman and Nolen (1938).

² The innovations keep coming although those more modern may seem less dramatic. Since the Second World War discount houses and shopping malls have become increasingly popular.

³ Beckman and Nolen (1938 pp.14-18) have a brief but interesting discussion of very early chain stores. There is evidence of chain retailing in China as early as 200 B.C. as well as in the ancient Greek and Roman civilizations. The Hudson's Bay Company is undoubtedly the oldest chain organization in North America. It operated a large chain of trading posts prior to 1750 and is still a major force in Canadian retailing, owning several major department stores.

⁴ In this period real GNP in the U.S. grew by about 148%. Source: Historical Statistics (1975 p.224). While the FTC study that was the source of the table's data classified even two stores under common ownership as a chain, the Census of Business definition (beginning 1929) requires that there be at least four stores in a chain. All Census chain data will therefore relate to chains of four or more stores.

⁵ 15th Census of the United States, Census of Distribution, Retail Distribution, Retail Chains, p.17 (1930)

⁶ See Lebhar (1963 p.33) and Facts in Food and Grocery Distribution, January 1938.

⁷ Barger 1955 p.74.

⁸ FTC, "Chain Stores-Sources of Chain Store Merchandise", 72d Cong., 1st Sess. (1932), Sen. Doc No.30 p.15.

⁹ Beckman and Nolen p.246.

¹⁰ In the 1890's and early 1900's a great many retail and wholesale trade associations were organized, among them the National Association of Retail Grocers (formed 1893), the National Association of Retail Druggists (1898) and the U.S. Wholesale Grocers Association (1892). See Colgate (1980).

¹¹ The Red and White Corporation is the most widely known of the retailer-cooperative chains. See Fulda (1951) pp.1061-1064.

¹² Final Report of the Chain Store Investigation p.7. Just under a half of these chains were of the retailer-cooperative type. The average retailer coop chain had 133 retail members, slightly fewer than the average of 138 members for the voluntary (wholesale) chains. FTC Chain Store Inquiry - Cooperative Grocery Chains, p.13

¹³ Beckman and Nolen p.247. Apparently some people made a great deal of money running antichain campaigns and some retail trade associations had to warn their members to be very careful before donating money to any antichain organization. Beckman and Nolen p.231 and Lebhar (1963) pp.171-174.

¹⁴ Lebhar (1932) presents and rebuts these and other charges. It is interesting that Lee (1939 p.72 ft.1) was unable to find any discussion of these antisocial properties of chain retailing written before 1920.

¹⁵ Posner (1976 p.26) suggested that A&P took on the image of a 1930's Standard Oil trust.

¹⁶ Senate R. 224, 70th Congress, First Session.

¹⁷ 74th Congress, First Session, Senate Document No.4, Final Report on the Chain Store Investigation.

¹⁸ Beckman and Nolen p.242.

¹⁹ An article in Trade Register, February 1922. From Arkansas Wholesale Grocers' Association, et al, 10 FTC 155 (1926), at 162-163.

²⁰ Palamountain (1955 p.45 ft.48) has a long list of these cases.

²¹ Palamountain (1955 Chapters VII and VIII). Business Week, in 1937, called the Association "the nation's most powerful trade association today" (August 28, 1937, p.42).

²² Lebhar (1963) p.142.

²³ Lee (1939) p.180.

²⁴ Phillips (1935) pp.349-350.

²⁵ Keystone Grocery and Tea Co. v Huster, unreported, but discussed in Lebhar (1963 p.128).

²⁶ Great A&P Tea Co. v Doughton 196 N.C. 145 (1928).

²⁷ Woolworth v Harrison, 171 Ga. 891 (1931).

²⁸ State Board v Jackson 283 U.S. 527 (1931).

²⁹ Great A&P Tea Co. v Maxwell 284 U.S. 575.

³⁰ Lebhar (1963) p.139.

³¹ Stewart Dry Goods v Lewis 294 U.S. 550 (1935).

³² In Ligget v Lee 288 U.S. 517 (1932).

³³ Huey Long, the governor of Louisiana, when fighting for the passage of this bill, exclaimed "I would rather have thieves and gangsters than chain stores in Louisiana." Quoted in Beckman and Nolen pp.228-229.

³⁴ Great A&P Tea Co. et al v Grosjean 301 U.S. 412 (1937).

³⁵ Hamtramck, Michigan imposed a tax of \$1,000 per store for any chain with four or more local stores (Lee 1939 p.95).

³⁶ The 1935 California tax and Utah's 1941 bill were struck down by referenda.

³⁷ Though not sampled in the study that was the source for Table 6, the FTC Chain Store report revealed that the average net operating profit for chain department stores in 1929 was \$56,393. FTC Chain Store Report, Chain Stores - Sales, Costs and Profits for Retail Chains, 73rd Congress, First Session, Doc. 40, Table 12, p.78.

³⁸ The largest chains were not necessarily any more profitable than the average. The average net profit in the A&P chain in 1929 was \$1,607 (Lee 1939 p.158).

³⁹ Palamountain (1955 p.187). The number of chain filling stations in the U.S. dropped by almost two-thirds between 1929 and 1939.

⁴⁰ See Ross (1984).

⁴¹ Beckman and Nolen (1938 p.241). A&P reportedly bought space in 1,300 newspapers (Palamountain 1955 p.181).

⁴² For more on these campaigns see Lebharr (1963 pp.324-328).

⁴³ Fortune, Feb. 1939, pp.88-89.

⁴⁴ "Already ... the effect of the chains' campaign is being felt in a switch of public sentiment in favor of the chains." New York Times, January 8, 1939, Sec.3, p.9

⁴⁵ H.R. 9464 Cong. Rec. Vol. 83 part 2 p.1921.

⁴⁶ Cong. Rec. Vol. 84, part 14, p.4054.

⁴⁷ Adelman (1966 p.53 ft.58) quotes Patman as saying "there is no place for chain stores in the American system".

⁴⁸ Palamountain (1955) p.181.

⁴⁹ They were (are): Alabama, Louisiana, Maryland, Montana, North Carolina and South Carolina. State Tax Guide, 1980, Commerce Clearing House.

⁵⁰ I am grateful to Gary Becker for discussions on this point.

⁵¹ On these theories, see, for example, Posner (1974).

⁵² For example, see Stigler (1971) and Peltzman (1976).

⁵³ Actually, grocery and combination store sales. Combination stores sell meat as well as groceries. This abbreviation applies throughout the paper.

⁵⁴ The effect need not be strong however, as total revenues collected from these taxes seldom represented one per cent of a state's total tax revenue. While over 4% of Florida's tax revenue in 1940 came from its chain tax, in most states the share was between one fifth and two-thirds of a percent, even less after 1940. Source: Blakey and Blakey (1945), Table 59. It should be clear, as well, that DEBT is far from a perfect measure of the degree of a state's financial distress.

⁵⁵ Source: Financial Statistics of State and Local Governments, 1932.

⁵⁶ The per capita personal income comes from Personal Income by States Since 1929, U.S. Dept. of Commerce, Office of Business Economics, 1956, Table 2, p.142.

⁵⁷ Federal Trade Commission, Chain Stores, State Distribution of Chain Stores 1913-28, Document No. 130, 73rd Congress, 2nd Session, 1934, pp.25-26.

⁵⁸ Data comes from Chicago Daily News Almanac and Year Book, selected years. REP=1 for 22 states.

⁵⁹ The Virginia legislature of 1930 provides another puzzling example. Both houses passed chain tax bills, but the Senate's version was of a form that had already been determined to be unconstitutional (the tax started on the sixth store). The State House passed a resolution asking

the Senate to "recede", making it clear that its (the House's) version had a much greater chance of surviving court challenges. The Senate steadfastly refused, even rejecting a similar plea from the Conference Committee. Virginia never did pass a chain tax bill. Source: Virginia Journal of the Senate 1930. An index to the series of events can be found on page 982.

⁶⁰ The public interest theory would suggest that REP should not matter.

⁶¹ The means of all the variables used in this section are reported in the appendix.

⁶² This estimation did not affect the other coefficients much but the GROCERY29 t-statistic fell.

	coeff	t
INTERCEPT	-4.946	-1.30
GROCERY29	0.266	1.17
(GROCERY29) ²	-0.005	-1.42
DEBT	3.662	1.45
BIGCHAIN	0.031	1.41
REP	-1.324	-1.73

Model $\chi^2 = 15.84$ P = 0.007

⁶³ Becker(1983) has recently shown that in cases in which the deadweight loss generated by special interest legislation is substantial, smaller groups may be more successful at securing such legislation than larger groups. Recognition of this fact does not change the interpretation of the

results here, however. Consistent with the findings of the occupational licensing studies, here we observe a positive relation between the independents' size (100-GROCERY29) and their ability to win legislative assistance. The public interest theory cannot explain this relationship.

⁶⁴ Because its tax wasn't comparable, Tennessee had to be excluded from this analysis.

⁶⁵ I am grateful to George Stigler for suggesting this inquiry, and to Robert Green for a great deal of assistance in carrying it out.

⁶⁶ Urban Senators were far from unanimous in their opposition, however. Seven Senators representing large cities supported the tax bill. The final vote was 35 to 11 in favor of the bill's passage. Source: Indiana Senate Journal 1929, March 9, pp.917-18.

⁶⁷ Illinois Journal of the Senate 1933, May 16, p.989.

⁶⁸ Source: U.S. Bureau of Census, 1972 Census of Governments, Vol. 6 No. 4, 1974 (DEBT) and Retail Census 1954 (GROCERY).

⁶⁹ $SHARE_{29} = 10.21 + 0.19 URB - 0.003 INC$
 (9.85) (5.76) (-1.07)

t-ratios in parentheses. $R^2 = .65$

⁷⁰ Arizona, in 1933, and Maine, in 1937, repealed their taxes. In 1937 Wisconsin lowered its top marginal rate.

⁷¹ Independents were much more likely to give credit and to provide delivery.

⁷² Beckman and Nolen (1938) p.112.

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APPENDIX

Surviving Chain Tax Bills 1927-1941

State	Year	Tax 1	on 5	Store 10	No. 20	Top Rate	Reached At
Alabama	1931	1	10	15	25	75	21
	1935	1	15	23	38	113	21
Arizona	1931	3	5	15	20	25	21
Colorado	1934	2	50	150	200	300	25
Florida	1933	5	15	15	30	100	76
	1935 ¹	10	100	200	400	400	16
	1941	0	50	100	200	400	51
Georgia	1937	2	25	50	100	200	41
Idaho	1933 ²	5	55	200	500	500	20
Indiana	1929	3	10	15	20	25	21
	1933	3	10	20	30	150	21
Iowa	1935	0	5	5	15	155	51
Louisiana	1932	0	15	25	40	200	51
	1934 ³	10	10	10	15	550	501
Maine	1933	1	5	10	25	50	25
Maryland	1933	5	5	20	100	150	21
Michigan	1933	0	25	50	150	250	26
Minnesota	1933	0	5	5	15	155	51
	1937	10	30	80	155	350	150
Mississippi	1936	0	10	20	75	300	41
	1938 ⁴	0	10	20	75	300	41
	1940 ⁵	0	10	25	50	300	251
Montana	1933	3	20	25	30	30	11
	1939	5	200	200	200	200	5
N. Carolina	1929	0	50	50	50	50	2
	1933	0	60	70	90	150	51
	1935	0	50	80	100	225	202
	1939	0	65	95	115	250	202
S. Carolina	1930	5	25	50	100	150	30

S. Dakota	1937	1	5	15	50	250	41
	1939 ⁶	1	5	13	25	150	51
Tennessee	1937 ⁷	0					
Texas	1935	1	25	50	150	750	51
W. Virginia	1933	2	5	10	30	250	76
Wisconsin	1932	0	10	20	50	100	21
	1935	0	25	50	150	250	26
	1937	0	25	35	55	100	26

Notes:

1 Florida's 1935 and 1941 taxes were retroactive, meaning the stated tax rate applied to all stores in the chain within the state. In 1941 Florida added a tax of \$10 per \$1,000 of inventory on all retailers.

2 Idaho's 1933 tax was retroactive. See note 1.

3 Louisiana's 1934 tax rates were based on the number of stores located anywhere, not merely in Louisiana.

4 Mississippi's 1938 tax was retroactive. See note 1 above.

5 Mississippi's 1940 tax was of the Louisiana type. See note 3 above.

6 South Dakota's 1939 tax was of the Louisiana type. See note 3 above.

7 Tennessee's 1937 tax was a tax on retail floorspace. Single store independents were exempt. All others paid \$3 per 100 square feet.

Sources: Lee (1939) Appendix and Retailers Manual (1935 and 1945).

Variable Means

SHARE29	16.93	
SHARE39	20.42	
GROCERY29	31.61	
GROCERY39	31.66	
DEBT	0.39	
BIGCHAIN	43.49	
REP	0.46	(22 out of 48 states)
CT1	0.58	(28 out of 48 states)
CT2	0.46	(22 out of 48 states)
TOPRATE	118.00	(including zeros)
	264.20	(excluding zeros)
TOPRATE38	113.90	(including zeros)
	254.90	(excluding zeros)
CT1F	0.13	(6 out of 48 states)
URB	45.46	
INC	617.63	