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THE ORIGIN OF THE SHERMAN ACT

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The Origin of the Sherman Act

If consensus were proof, there would be little uncertainty about the origin of the Sherman Act. A depressed agricultural sector -- still in 1890 a major part of the American economy -- was casting about for sources of its economic troubles. One source was found in the deflation of the 1879-93 period, and the gold standard which brought it about. But monopolies -- especially railroads for the farmer and the flourishing industrial trusts for everyone -- were equally popular targets of complaints. The Republicans passed the Sherman Act to head off the agrarian (Granger and Populist) movements. So, in brief outline, goes the most popular explanation for the emergence of our anti-trust policy.

This essay is devoted to a reexamination of the problem of why the United States introduced an affirmative competitive policy. We begin with the explanation that has just been sketched, but since that explanation seems gravely incomplete, we proceed to other hypotheses.

1. The Agrarian Movements

The Granger movement, which began in 1867 and reached its maximum strength about 1873, gave rise at one time or another to political parties with anti-monopoly programs (and in one case, the name Anti-Monopoly). State laws seeking to control railroad rates were passed under the influence of this movement.¹ In the late 1880's, numerous western and southern states passed anti-monopoly laws.² Thorelli tells us that "the initial impetus of post-bellum opposition to monopoly stemmed mainly from the agrarian element."³

¹Hans Thorelli, The Federal Antitrust Policy, (Baltimore, Johns Hopkins, 1955), pp. 58ff.

²Ibid., pp. 155ff.

³Ibid., p. 143.

The agrarian movement, on this reading, first attacked the railroads and then expanded the attack to include all (other) monopoly.⁴

To a believer in the rational behavior of political participants, the "agrarian distress" explanation for the appearance of an antitrust policy is a real puzzle. The railroads aside, there is no reason to expect that farmers were more vulnerable to monopolistic exploitation than the remainder of the population: they were not extensive purchasers of anything else beside land and credit. Were the railroads a suitable villain?

We have made admittedly crude estimates of the ratio of all railroad "profits" (chiefly, return on equity investment) to the "semi-net" farm receipts (see Appendix A), and that ratio is only about 1 to 1½ percent for all farming, and reaches 5 percent only in the area between Nebraska and Montana. The utmost regulation of railroad rates compatible with survival of the railroads would have made an almost negligible addition to farm incomes.

Nor was the trend in rates such as to incite unusual complaints in the 1880's. One vast source of reduced transportation costs was the extension of the railroad network. The mileage of roads west of the Ohio or Mississippi is instructive:⁵

⁴As of 1890, 22 states (of a total of 41) had constitutional or statutory provisions (or both) against monopoly. These states had an average of 50.6 percent of their labor forces in agriculture, as against 29.7 percent in the other 19 states (a highly significant difference).

⁵Statistical Abstract of the U.S., 1888, p. 183 (based on Poor's Manual).

<u>Year</u>	<u>Mileage West of the Ohio or Mississippi Rivers</u>
1870	25,000
1880	53,000
1888	95,000

A second source was the secular decline in transportation rates from at least 1880 to 1900.⁶ The low level of railroad rates in the United States was a source of much comment by European students.⁷ It is highly probable that the railroads made the incomes of farmers more stable as well as larger than they would have been without the roads.⁸

⁶The rate for grain from St. Louis to New York fell 40 percent from 1879-81 to 1898-1900.

⁷W.M. Acworth, The Railways and the Traders (London, John Murray, 1891), p. 206, sets the average American rate at half the English rate.

⁸The railroads helped to bring the midwestern farm area into the world market. The chaining of farm prices to Liverpool prices would reduce the variance of farm receipts:

- i. Let $p_1 = \log P$ (price) and $q = \log Q$ (crop), where P and Q are (say) Kansas price and crop. Before the railroad arrived,

$$\sigma_{p_1+q}^2 = \sigma_{p_1}^2 + \sigma_p^2 + 2r_{p_1q} \sigma_{p_1} \sigma_q \quad (1)$$

- ii. Let $Q = AP^{n_1}$ be the demand curve, so
 $q = \log A + n_1 p$, (2)

where n_1 is the elasticity of demand, taken as $|n_1| < \frac{1}{2}$.

In a regression of quantity on price,

$$0 > n_1 = r_{p_1q} \frac{\sigma_q}{\sigma_{p_1}}, \text{ and substituting into (1),}$$

$$\sigma_{p_1+q}^2 = \sigma_{p_1}^2 (1+2n_1) + \sigma_q^2. \quad (3)$$

- iii. After the railroad arrived, $\sigma_{p_2}^2$ ($\ll \sigma_{p_1}^2$) is

established, and also $n_2 < n_1$, because the demand becomes more elastic, so now

$$\sigma_{p_2+q}^2 = \sigma_{p_2}^2 (1+2n_2) + \sigma_q^2,$$

There is a deeper reason for not finding the main support for antitrust policy in a distressed agricultural class: antitrust policy became stronger after 1900 as agricultural distress (and a separate political movement by farmers) passed away. For the farmers to combat the railroads -- who were major benefactors of western agriculture -- was in fact perverse behavior.

The farmers were an inappropriate special group to launch an antitrust policy on grounds of self-interest. They were no more vulnerable than other groups to industrial monopolies, and to the minor extent that they had special concern with railroads, the recently created Interstate Commerce Commission was a selective instrument to deal with them. The ICC had not achieved much by 1890, no doubt, but how much did the Sherman Act achieve in its first three years? Econometrics may never achieve the precision necessary to detect an influence of the Sherman Act in 1893 on anything. We postpone (to another time) consideration of the inevitable suggestion that the frustrated farmers did not seek a rational explanation for their attack on monopolies: they believed in the devil.

2. The Self-Interest Hypotheses

We turn to self-interest theories of the Sherman Act. We must emphasize that it is this act, not the whole subsequent antitrust program, that we are seeking to explain. It was a serious flaw in William F. Baxter's study, The Political Economy of Antitrust,⁹ that he sought to explain the bundle of antitrust statutes as a whole. We shall go so far as to examine the Clayton and Federal Trade Commission Acts of 1914, but our main focus is on the first

Footnote 8, continued:

and this variance is smaller than (3) under the specified conditions.

⁹Ed. by R.D. Tollison, (Lexington, Mass., D.C. Heath, 1980).

20 years of the Sherman Act. In that period, to repeat, the vigor of enforcement of the act grew, *pari passu* with the decline of agrarian political power and discontent.

The Sherman Act was potentially applicable to all of interstate commerce, which had not yet swallowed all commerce as the Knight decision was to show. Who were its beneficiaries and its victims?

Economic theory tells us, as it told Adam Smith, that output is at a maximum under competition, so it would appear that everyone was a beneficiary of a rule commanding competition. It would even be difficult to conjecture up any redistributions of income consequent upon the effective enforcement of a competitive rule that would systematically run against any important group.

The losers would be the present and prospective possessors of monopoly power. This is a select group: for example, it surely does not include the business community or manufacturing at large. The average business is not capable of achieving effective cartellization or monopoly, simply because the small relative size of an efficient enterprise and the absence of entry barriers make such goals unattainable. Hence the average business is not among the prospective losers of an antitrust policy.

In order to identify the most likely losers, we have gone to the list of industries that were highly concentrated in 1900. There is a measure of paradox in identifying as victims of antitrust policy those industries which often became highly concentrated after the passage of the act, but at least those industries were capable of (possibly temporarily) high concentration, and could clairvoyantly fear a vigorously enforced Sherman Act. That list of industries is provided by G.W. Nutter's well-known dissertation, The Extent of Enterprise Monopoly in the United States.

3. The Vote on the Sherman Act

Before we turn to the analysis of the vote on the Sherman Act, it is desirable to explore two ambiguities in the analysis of legislative roll calls.

When a legislator votes on a proposal, the fact that he votes yea or nay does not tell us a great deal about his attitude toward the proposal. If he abstains, we may not infer that he is indifferent between the choices. If he objects to a proposed minimum wage, it may be because he thinks it is too low or too high, and in the latter case, possibly 100 percent too high. Similarly, if the Sherman Act is up for a vote, he may wish the sanctions to be stronger, or oppose the private enforcement section (triple-damages), or desire some other change -- or simply be in favor of monopolies, at least for his nephew.

Thus, consider the House motion which was made to recommit the Sherman Act to the Committee on Rules. This action could be viewed as a delaying-action, although that interpretation is most debatable.¹⁰ The motion provoked a real division of votes (97 yea, 126 nay, and 104 abstaining), in which the majority (voting nay) wished to consider the Act at once, but it is difficult to interpret this as a division on the merits of the Sherman Act. The vote was partisan,¹¹ but we will later give evidence that the support for the Sherman Act was not partisan.

The central problem is that a legislator usually is not afforded an

¹⁰The "trust bill" was tied in the sequence of legislative consideration with two other acts (on copyrights and bankruptcy), and they would be separated by the motion. But the Rules Committee was instructed to set a day for separate -- and immediate -- consideration of the trust bill. (Congressional Record, May 1, 1890, pp. 4086-4088). For a detailed legislative history of The Sherman Act, see Albert H. Walker, History of the Sherman Law of The United States of America, (New York, Equity Press, 1910).

¹¹The vote was as follows:

opportunity to give an accurate statement of his preferences, probably not even if he makes a long speech on the proposal. There is even a doubt that his vote on the final bill represents his preference -- this is the second difficulty in analysing roll calls, to which we now turn.

Party discipline requires that a legislator support some measures which on balance are opposed by his constituency. The party adopts a set of policies which provide the basis for a viable coalition, and individual constituencies choose that party which on balance provides the larger benefits to them. This will almost certainly mean giving support to some mildly disliked policies in exchange for support for some ardently desired policies. Hence we will observe legislators being asked to take party positions uncongenial to their constituents. If the party position is extremely unpopular with a constituency, we predict that the legislator will not support his party (i.e., he will abstain, or vote against the party) especially if his hold on his seat is tenuous. But the stronger the party discipline, the looser will be the relationship between the legislator's vote and his constituency interest.¹²

The final House vote on the Sherman Act was unanimous (242 for, 0 against) and this faithfully reflects the support of the antitrust policies by both parties.¹³ The Democratic platform of 1892 stated: "... we demand the rigid enforcement of the laws made to prevent and control [Trusts and Combinations]."¹⁴

Footnote 11 continued:

	Yea	Nay	Abstain
Republicans	0	114	56
Democrats	97	12	47
Independent	0	0	1

¹²This argument is elaborated in "Self-Interest, Parties and Ideology."

¹³The Senate vote on the Act was 52 for, 1 against.

¹⁴D.R. Johnson and K.H. Porter, National Party Platforms (University of Illinois Press, 1973), p. 87.

There is no evidence of Democratic opposition to the antitrust laws in these years. Moreover, there was no association before 1890 between the presence of a state law or constitutional provision of antitrust policy and the party control of the state Congressional delegation in 1890:

	<u>Number of States</u>	
	Republican	Democratic
Party Control of Delegation	23	18
Antitrust Laws before July 1890 ¹⁵	8	8

Perhaps both parties contained a few monopolists or prospective monopolists who stood to lose by a policy of effective opposition to monopoly, but their number could not be sufficient to change party positions. We note that the same Congress that passed the Sherman Act also passed the Harrison Tariff of 1890, primarily with Republican votes, so we can also argue that the pro-business party led the support for the Sherman Act.

In order to investigate the possible role of self-interest of potential monopolists, therefore, we will employ the approach described above. As the final vote on the Sherman Act was 242 for and none against, we look to the votes of the 85 party members who abstained, to measure the effect of individual constituency characteristics on representatives' votes. In the case in hand, we examine the votes and abstentions on the final ballot, as functions of

¹⁵ The primary sources for identifying states with antitrust legislation are Henry R. Seager and Charles A. Gulick, Jr., Trust and Corporation Problems (New York, Harper, 1929) Chapter XVII and Thorelli, op. cit., pp. 79-84 and 155-56.

- i. The percent of "monopolized" (concentrated) industry employment (of 1899) of the state's non-agricultural labor force in 1890. Let this be X_2 . The unweighted average value of X_2 for 41 states is 9.73%; the standard deviation, 7.92%.
- ii. The percent of freshmen congressmen in the state delegation, a proxy for the weakness of the congressmen's hold on their positions. Let this be X_3 . The unweighted average for X_3 is 42.1%; the standard deviation, 32.5%.

We interpret the percent of the non-agricultural labor force in monopolized sectors as the closest proxy to the class of losers under the act, although it is not a close proxy.¹⁶ The second variable measures (again quite imperfectly) the need of the representative to pay close heed to his constituency, a force much weaker in 1890 than today because long tenure was not customary.

A regression equation relating the percent of a state's delegation voting (rather than abstaining) for the Sherman Act (X_1) to X_2 and X_3 is:

$$\text{Percent of Delegation Voting } (X_1) = 78.76 - .0877X_2 - .0279X_3$$

(t=0.18) (t=0.23)

$$R^2 = .002, N=41$$

Neither variable has a statistically significant influence: there is no evidence that abstention was induced by the possible influence of constituency interests.¹⁷ We tentatively conclude that the self-interest of special

¹⁶The prospective monopolists had to predict their 1899 situation; they had to have trusts which were vulnerable to probable governmental action; states could be too large as units of analysis; etc.

¹⁷The state provisions against monopolies (see n.4 above) yield some support to the constituency hypothesis. The share of the states' non-agricultural labor force in industries "to be monopolized" by the Nutter criterion was 12.9 percent in the states with no anti-monopoly legislation, and 6.0 percent in the states with such legislation (again a statistically significant difference).

interest groups was not important in passage of the Sherman Act.

4. The Later Legislation

The next major legislation on anti-trust matters came in 1914 with the Federal Trade Commission and Clayton Acts. The question we must raise is whether the legislative history of these acts sheds light on the support for the Sherman Act in the preceding period.

If the concordance of recommendations and subsequent actions is a proof of causality, John B. Clark was a major draftsman of the 1914 Acts. His paramount theme was that large firms, even firms technically monopolizing a market, could be disciplined and restrained by potential competition so long as the large firm could not use predatory practices to prevent the emergence of competition. He placed special emphasis on the prevention of local price-cutting,¹⁸ but also prohibitions on interlocking directorates, requirement contracts, and a general prohibition on unfair methods of competition. It is worth noticing that Clark believed that only trusts were a problem: "restraint of trade" meant for him a situation in which a consolidation takes unfair actions against new competitors.¹⁹ Whether Clark was so influential -- he does not appear in the Congressional debates on the new legislation -- it is plausible to argue that he presents an authoritative view of the role of the new legislation: it was to prevent unnatural barriers

¹⁸ John B. and John M. Clark, The Control of Trusts (2nd ed.; New York, Macmillan, 1912), Ch. VII. He even proposed mandatory f.o.b. pricing, ibid., pp. 104 ff.

¹⁹ Ibid., p. 130. Secret price conspiracies were fragile, and, hence unimportant, ibid., pp. 155-58.

to entry from shackling potential competitors.²⁰

The 1914 legislation was hailed by many as providing more effective instruments to deal with predatory competition, but it was also opposed by people as knowledgeable as President-Justice Taft on the ground that the Sherman Act was fully adequate to deal with the enumerated offenses. A close reading of the votes on the bills in their movement through Congress does not clarify the rationale. A concern with predatory competition is consistent with a populist value of protecting small business, and also less easily reconciled with the basic concern with non-competitive structure and behavior of the Sherman Act. When the Senate defeated by only two votes a proposal that no two corporations in the same line of business be allowed to merge, whatever the effect on competition,²¹ one is entitled to suspect that a concern with competition is not the only or perhaps the major drive behind the new anti-trust policy.

Indeed after 1914, all of the acts (except probably the 1950 anti-merger statute) seem to replace competition with other goals. The Capper-Volstead Act of 1922 was not even the first to exempt an activity -- this time agricultural cooperatives -- from the restrictions of the anti-trust laws. Their legislative sponsorship reveals the special nature of the beneficiaries.²²

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The same recommendations were coming from Brandeis; see G. Henderson, The Federal Trade Commission (New Haven, Yale University Press, 1924), pp. 17-18.

21

Congressional Record, Aug. 29, 1914, pp. 14419-14420. Another vote, not quite as close, sought to prevent all corporations from holding stock in two or more other corporations, whatever their lines of business (Congressional Record, August 31, 1914, p. 14462).

22

The House vote on the final bill (Congressional Record, May 4, 1921, p. 1046) can be related to the (state) constituencies of the Congressmen: Y_1 is the percent of the state's House delegation voting "yes," Y_2 is the 1919 ratio of marketing and purchases by cooperatives to total value of agricultural products, and Y_3 is percent farm of total population, 1920.

$$Y_1 = 58.5 + 144.9Y_2 + .376Y_3 \quad N=48$$

$$(t=1.46) \quad (t=2.04) \quad R^2=.107$$

5. The General Problem

To deduce that an economic policy has been adopted for the interest of the vast majority of a society, one would hope to present evidence stronger than the inability to find some narrower and more cohesive group which sought its adoption. After all, the alternative explanation that the right "special" interest has been overlooked is hard to reject confidently.

There are laws - such as those against heinous crimes - where such misgivings are absent or trivial. An antitrust policy presumably does not qualify on this ground of self-evidence, and precisely because that policy has not been at all common to other, similar societies.

Britain, which was well in advance of the United States in its industrialization in 1890, did not enter into even a mild policy against restrictive practices for another half-century. It is a cliché of English history that the policy of free trade protected its economy against serious monopoly problems until the 1930's, but it is a cliché lacking specific evidence and even general plausibility. There are many products and services that will not bear large transportation costs. England had a vigorous amalgamation movement at the end of the last century.²³ We know that important industries such as cement were turned by vast mergers into highly concentrated industries.²⁴ Was the public interest more powerful in the United States than in Britain?

²³ Leslie Hannah, The Rise of the Corporate Economy, (Baltimore, Johns Hopkins, 1976) Chapter 2.

²⁴ George J. Stigler, "The Economic Effects of the Antitrust Laws," Journal of Law and Economics, Vol. IX, October 1966.

Again, there was a strongly critical report on combinations and cartels in Canada in 1888, and the following year the Canadian Parliament declared certain unlawful (!) practices (of the common law) to be unlawful. This act is generally believed to have weakened the common law, and no serious or remotely effective combines act was passed for at least three decades.²⁵ Was this again a case of reliance upon foreign competition?

There are of course many more nations which did not adopt antitrust policies, and we must remember that they also had many years before 1890 to adopt them. It may be that the problem of monopoly did not become large until the age of large scale manufacturing enterprise, but some one else is welcome to argue that case. Superb communication and high mobility of capital and other resources are the hallmark of the post-Sherman period, not of the centuries before.

So even if the general welfare of the nation led to the adoption and support of the American policy, a satisfactory explanation for that policy requires a still missing explanation for the absence of such a policy elsewhere.

²⁵ Lloyd G. Reynolds, The Control of Competition in Canada (Cambridge, Harvard University Press, 1940), pp. 134-135; J.A. Ball, Canadian Anti-trust Legislation (Baltimore, Williams and Wilkins, 1934), pp. 10-13.

Appendix A
 Railroad Freight Revenues and
 Agricultural Income, 1889

The procedure by which railroad freight revenues are compared with agricultural income in the western states is briefly described in this appendix.

1. Agricultural Revenue

The 1890 Census presents the total value of 1889 farm products.²⁶ We calculate the net value of products as this total less

- i. Value of crops fed to livestock²⁷
- ii. Cost of fertilizer
- iii. Interest payments of farmers
- iv. Cost of hired farm labor.²⁸

The last component is about 10 percent of 1899 value of farm product, and must be allocated by states by a crude proxy such as state labor force.²⁹ The deductions in total come to about

²⁶ Source: U.S. Census Office, Abstract of the Eleventh Census: 1890, Second edition, revised and enlarged, 1896; this is also the source for items ii and iii below.

²⁷ Estimated for the U.S. and by states as same proportion as reported in 1899 (.207 for the U.S.). Source: U.S. Census Office, Abstract of the Twelfth Census: 1900, 1902.

²⁸ Estimated for the U.S. by the ratio of farm laborers in 1889 to 1899, times expenditure on farm labor in 1899; source: 1900 Census abstract (see note 24). The ratio of 1889 to 1899 daily farm wage rates (0.95) was used to correct for wage rate changes; source: U.S. Bureau of the Census, Historical Statistics of the United States, 1975.

one-fifth of the value of farm output. The remainder is not net income, because there are other expenditures (wagon-haul, machinery, etc.), but is roughly equal to the income including compensation for the farm family's labor and investment.

2. Railroad Net Income Attributable to Agricultural Freight

The gross operating earnings from all freight are gross revenue from freight, plus

- i. "other freight earnings," including stockyards, elevators, etc.
(0.4% of total freight revenue)
- ii. "Telegraph, rents and other sources;"
includes rental of grain elevators.³⁰

The net earnings (after payment of interest) from freight are assumed to be proportional to the share of freight in total revenues (about 70% for the U.S.). This calculation yields net earnings from freight for each ICC region.

The proportion of net earnings from freight due to agricultural freight originating in each of seven ICC regions is based upon data on freight originating, and received from other regions, by major commodity classes.³¹ Net income attributable to

²⁹ Sources for labor force figures by state: 1890 and 1900 Census abstracts (notes 23 and 24 above).

³⁰ Source: U.S. Interstate Commerce Commission, Statistics of Railways in the U.S., 1890, Year Ending June 30.

³¹ Source: U.S. Bureau of the Census. Report of Transportation Business in the U.S. at the Eleventh Census, 1890. Tonnage not reported in detail is divided between originated and received agricultural tonnage in the proportions of the freight so segregated for each region. Freight consisting of products of mines

agricultural freight originating in each region is calculated as follows: (1) the ratio of agricultural tonnage originating in a given region (A) to total freight tonnage carried in that region is employed to attribute net freight income of that region to agricultural produce; (2) in addition, the ratio of A to total tonnage carried in each region to the east of region i is used to attribute freight income of other carrying regions to agricultural produce from region i.³² Thus, railroad income originating in ICC region III (east north central) is composed of the originating agricultural freight proportion of region III income plus some proportion of region II (mid-Atlantic) income. The resultant total is the estimated railroad net income from agricultural freight figure given for region III in Appendix Table L.

is excluded from total tonnage throughout.

³² These ratios are adjusted downward by the ratios of agricultural freight received in each region to that carried in the region to its west. This adjustment takes account of attrition to water routes and local consumption.

Estimated Agricultural Freight
Income as Percent of Farm Value, 1889

	Railroad Net Income from Agricultural Freight (\$000)	Net Value of Farm Output (\$000)	Freight Income as Percent of Value of Farm Output
ICC REGION:			
II: NY, PA, MD, NJ	\$ 2,144	\$ 184,057	1.2%
III: OH, MI, IN	4,220	196,771	2.1
IV: VA, WV, SC, NC	106	117,055	0.1
V: KY, TN, MS, AL, Ga, FL	403	275,747	0.1
VI: IL, WI, IA, MN, ND, most of SD	9,866	322,864	3.1
VII: MT, WY, NE	2,018	41,642	4.8
VIII: CO, KS, OK, most of MO, AR	1,915	179,634	1.1
U.S., incl. states not above	21,623	1,605,215	1.3