SESSION 2

Insights derived from history and natural experiments

A Cartel Policy Experiment During the Great Depression: The National Industrial Recovery Act of 1933

Jason E. Taylor
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The National Industrial Recovery Act (NIRA)

Signed into Law on June 16, 1933

(Ruled Unconstitutional May 27, 1935)

Government Sponsored Cartels during the Great Depression

The National Industrial Recovery Act (NIRA)

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Industry-Level "**Codes of Fair Competition**"

Could contain provisions directing the various aspects of business such as production, pricing, wages and hours, capital usage, productive capacity, packaging, shipping, sales techniques, etc., within that industry.

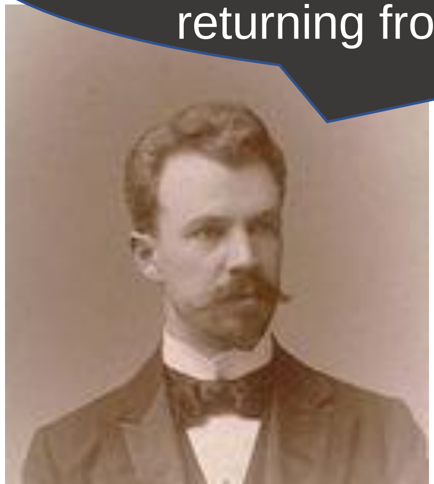
What were they Thinking????

- “Planning” was in vogue in the US during the 1920s and 1930s.

- WWI planning by U.S. War Industries Board viewed as successful.

“I’ve seen the future and it works”

—US Journalist Lincoln Steffens after returning from the Soviet Union in 1919



What were they Thinking????

- “Planning” was in vogue in the US during the 1920s and 1930s.

- WWI planning by U.S. War Industries Board viewed as successful.

- “Competition” was viewed as destructive—a cause of the Depression:
  - “destructive price cutting”
  - “ruinous competition”
  - “over production”
  - “underconsumption”

During 1920s US government relaxed antitrust enforcement to allow, and even encourage, interfirm coordination—so this was not a new viewpoint in 1933.

Roosevelt Speech to the Chamber of Commerce (May 4, 1933)

"You and I acknowledge the existence of unfair methods of competition, of cut-throat prices and of general chaos . . .

Order must be restored [and] the attainment of that objective depends upon your *willingness to cooperate with one another* . . . to prevent overproduction, to prevent unfair wages, and [to] eliminate improper working conditions."

The Industry Code Formation Process

Each industry was told to organize and draft a "code" of rules and regulations for the industry and send this to the NRA.

In addition to required minimum wages and maximum hours ("labor") provisions, could also include "trade practice" provisions regulating prices, output, capacity, etc.

The Industry Code Formation Process

Each industry was told to organize and draft a "code" of rules and regulations for the industry and send this to the NRA.

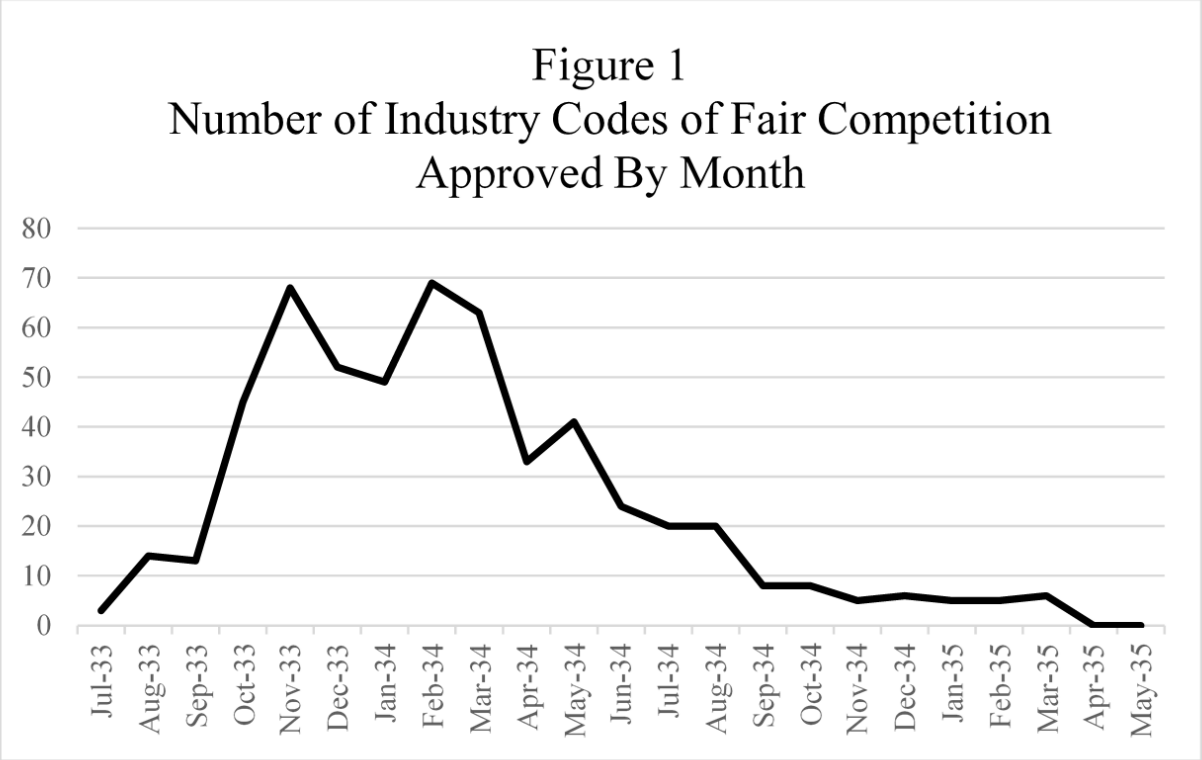
A public hearing would be held whereby representatives of the industry, consumers, the government, labor, and members of the public, could debate aspects of these codes.

<u>**Ultimately, government would approve the industry's "code of fair competition" and *the provisions were enforceable by law.***</u>

Pictures from these Code Hearings: Scrap Iron, Upholstery, and Electric Light and Power Industries.

Source: National Archives, Record Group 9, “Pictorial Materials” Entry Number PI 44-43, Box 3.

557 Industry Codes were Approved between July 1933 and March 1935



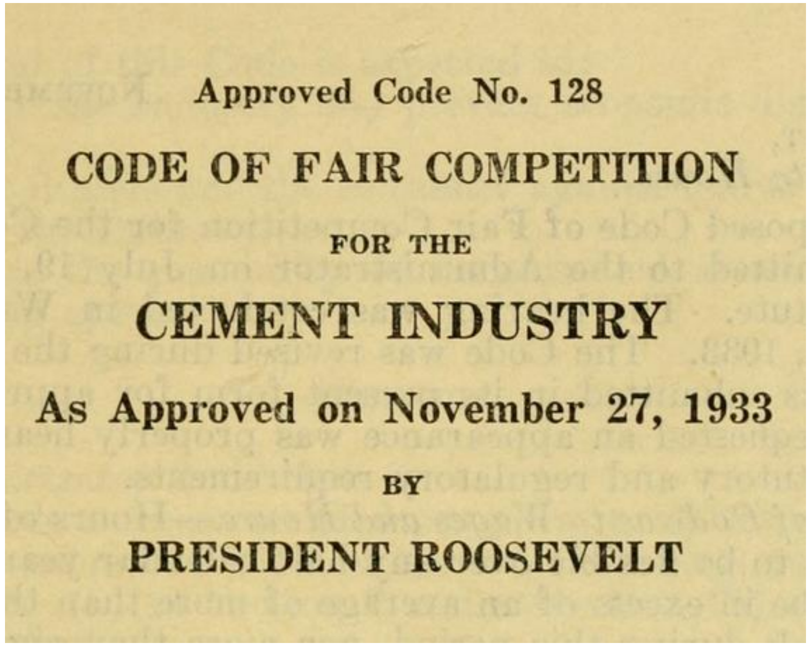
Notes and Source: A total of 557 codes were passed between July 9, 1933 and March 30, 1935. U.S. National Recovery Administration. 1933-1935b. *Codes of Fair Competition,* Volumes 1-23. Washington D.C.: United States Government Printing Office.

Vast Heterogeneity within the Codes

- Rayon and Synthetic Yarn: 6 pages. Simply contained the labor provisions for wages and hours.
- Paperboard: 10 pages. Firms had to submit data regularly to the code authority on capacity, production, sales, inventory, etc.
- Asphalt and Mastic Tile: 16 pages. Open-price filing provision—firms had to notify the code authority 10 days in advance of any price change.
- Iron and Steel: 38 pages. No new productive capacity allowed. Basing point pricing system—prices charged are fixed/standardized from certain base points.
- Lumber: 52 pages. Production quotas (3-month allotment of output each firm could produce). Price fixing. Several pages of "rules for fair trade practice."

The Cement Industry Code

Code was 24 pages long and contained 18 articles, most of which had multiple rules and regulations therein.



Approved Code No. 128

CODE OF FAIR COMPETITION

FOR THE

CEMENT INDUSTRY

As Approved on November 27, 1933

BY

PRESIDENT ROOSEVELT

The Cement Industry Code

ARTICLE VI—PLAN FOR SHARING AVAILABLE BUSINESS

1. The Board is hereby authorized to formulate a plan or plans, within thirty (30) days after the effective date of this Code, unless such time shall be extended by the Administrator, for the equitable allocation of available business among all members of the industry or among members of the industry operating in one or more Districts, and for the control of cement inventory and to submit the same either to a meeting of all members of the industry or to meetings of members in the Districts affected, as the Board may determine, for approval, modification or rejection. Each member of the industry shall be entitled to receive notice of any such plan and to participate in any meeting or meetings of all members of the industry or of members in the District in which such member operates and, further, shall have the right to appear before the Board at any meeting at which any such plan is being considered for the purpose of presenting any facts or arguments relative thereto.

The Cement Industry Code

ARTICLE VII—INCREASE IN PRODUCTIVE CAPACITY

Prior to the construction or operation of a new plant, or the increase in the productive capacity of an existing one, or the movement of all or part of such a plant from one place to another, The Cement Institute, on receipt of such information, shall promptly collect complete information concerning existing productive capacity in the area in which the proposed new plant is to be located, together with data concerning consumption of cement in that area. If these data disclose that such new plant will result in further increasing the problem of over-production or over-capacity in such area, The Cement Institute may petition the President to prohibit the construction, or operation, of the proposed new plant, or the increase in manufacturing capacities of such existing plants. The provisions

Article IX—Open Price—Market Stabilization

1. Each member of the industry shall file its prices and all terms and conditions of sale with the Code Authority within five (5) days after the effective date of this Code and make same public by broadcast quotations to the trade, so that competitors, the trade, and the buying public may at all times have accurate information relative thereto, and no member of the industry shall deviate therefrom except in the manner hereinafter provided.

2. Any member of the industry may from time to time change or revise its prices by filing notice thereof with the Code Authority; and no member of the industry shall anticipate, by quotation, sale, contract, or otherwise, any change or revision until after the same shall have been on file at least five (5) days at the office of the Code Authority. At the expiration of such five (5) day period the said changes or revisions may, unless the effective date thereof shall be extended, be made effective, and thereupon shall be made public in the manner provided in Section 1 hereof.

3. Any member of the industry may meet the prices, terms, and conditions of sale, established by the above method, as of their effective date, and no member of the industry shall deviate from the prices, terms, and conditions of sale, so established, except in the manner above stated, and all members meeting such changes shall make same public in the manner provided in Section 1 hereof.

The Cement Industry Code

ARTICLE XI—METHOD OF SELLING AND MARKETING CEMENT

The Code Authority may, after the approval of the Administrator has been secured, authorize and approve such exceptions to or modifications of any of the following provisions as it may see fit for all members of the industry in the marketing area affected.

No member of the industry shall discriminate in prices, terms, and conditions of sale at the same time and place of delivery between purchasers or users of cement in the same class and similarly situated.

1. Except as otherwise specified, portland cement shall be marketed in each community through the building material dealers regularly serving such community.

2. Except as otherwise specified, the following buyers shall be sold direct by members of the industry at the same price and under the same terms and conditions of sales as to dealers:

The Cement Industry Code

ARTICLE XIII—STANDARDIZATION OF PRODUCTS

1. All Portland Cement marketed by members of the industry shall comply with the standard specifications for Portland Cement of the American Society for Testing Materials, and the American Standards Association, and/or the Federal Specification Board. Members of the industry may sell cement under modified Portland Cement specifications that are designed to meet special or unusual conditions not adequately or properly covered by the specifications hereinabove referred to, provided, however, that the price at which such modified Portland Cements are sold shall be filed with the Code Authority.

The NRA Enforcement Mechanism

Violators potentially faced:

- Fines of up to $500 and up to 6 months of imprisonment

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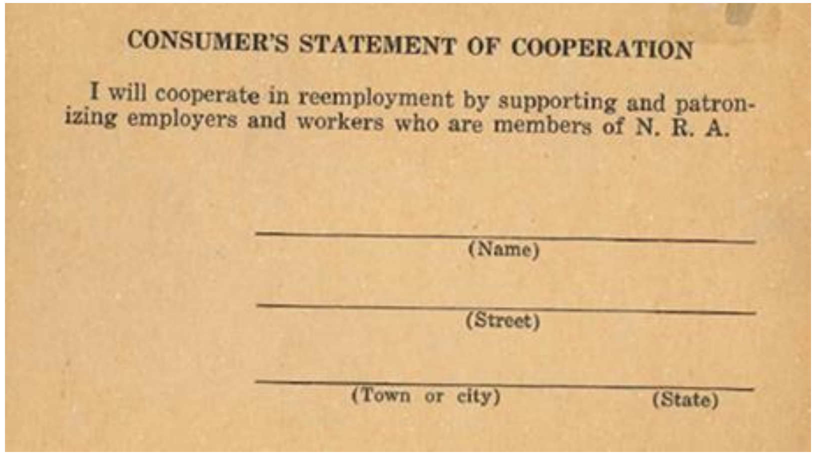
- Loss of the Blue Eagle emblem. Roosevelt Administration encouraged patriotic consumers to shop at Blue Eagle firms and boycott those without.



CONSUMER'S STATEMENT OF COOPERATION

I will cooperate in reemployment by supporting and patronizing employers and workers who are members of N. R. A.

(Name)

(Street)

(Town or city) (State)

The NRA Enforcement Mechanism

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- Fines of up to $500 and up to 6 months of imprisonment
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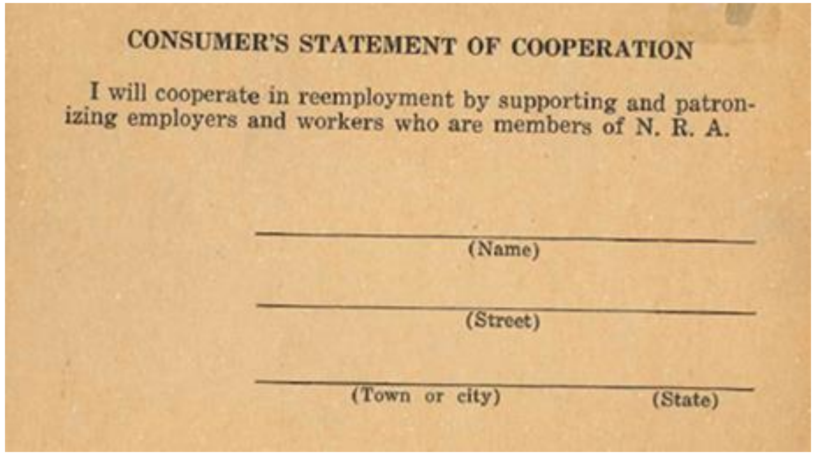
Alleged violations of codes were to be reported to the National Recovery Administration Compliance Division which would then investigate and see whether punishments were deserved.



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NRA
WE DO OUR PART
BOISE
CHAMBER of COMMERCE
NRA


NRA
MEMBER
U.S.
WE DO OUR PART


NRA


NRA
MEMBER
U.S.
WE DO OUR PART
Hickey-Freeman
WINTER OVERCOATS
AND FALL TOPCOATS
A great August sale of coats bought in January and June
$49.50
Words can't describe Hickey-Freeman's superiority over all other clothes. Only men who've worn them know it. When you can buy coats like these for $49.50—when you realise that the cost of replacing them is tremendously higher—it's good reason to buy—and buy now. Burly ulsters, dress overcoats, box coats, fall topcoats—a vast selection at $49.50. 6th floor
MAURICE L ROTHSCHILD
State at Jackson


NRA
NRA
NRA
NRA
NRA

Cooperation was a clear best response <u>if firms believed</u> that defections would be punished with **fines, imprisonment, and boycotts**

In the first few months of the NIRA cartel experiment, compliance with the NIRA rules was very high.

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In the first few months of the NIRA cartel experiment, compliance with the NIRA rules was very high.

Compliance waned a bit in 1934 and 1935 as enforcement was less common than initially expected, and Blue Eagle became less popular as the economic gains that were promised did not materialize.

Did the NIRA Facilitate Collusive Outcomes?

Perhaps of greatest interest here:

How have scholars attempted to measure collusive behavior under the NIRA???

Did the NIRA Facilitate Collusive Outcomes?

Chicu, Vickers, and Ziebarth (2013) and Vickers and Ziebarth (2014) “cement” the case that collusion occurred under the NIRA via **<u>plant-level studies of the cement and macaroni industries.</u>**

They show that before the NIRA, the costs of a cement plant’s nearest neighbor had a positive effect on a plant's own price, suggesting competition.

They employ plant-level data.

ELSEVIER

Explorations in Economic History

Volume 50, Issue 4, October 2013, Pages 487-507

Cementing the case for collusion under the National Recovery Administration ☆

Mark Chicu [a], Chris Vickers [a], Nicolas L. Ziebarth [b, c]

Did the NIRA Facilitate Collusive Outcomes?

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They show that before the NIRA, the costs of a cement plant’s nearest neighbor had a positive effect on a plant's own price, suggesting competition. After the NIRA, this effect was completely eliminated, with no correlation between a plant’s own price and its neighbor's cost.

Did the NIRA Facilitate Collusive Outcomes?

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In macaroni industry, after the NIRA is in effect: prices became less responsive to changes in cost, the dispersion of prices decreased, and the persistence in prices increased, consistent with anticompetitive behavior.

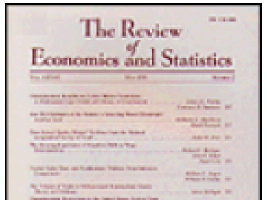
Did the NIRA Facilitate Collusive Outcomes?

Alexander (1994) examined industry-level price-cost margins to look for signs of collusion.

She found a significant correlation between an industry's 4-firm concentration ratio and its price-cost margin *prior to* the NIRA.

The Impact of the National Industrial Recovery Act on Cartel Formation and Maintenance Costs

Barbara Alexander



The Review of Economics and Statistics
Vol. 76, No. 2 (May, 1994), pp. 245-254 (10 pages)

Published by: The MIT Press

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She found a significant correlation between an industry's 4-firm concentration ratio and its price-cost margin <u>*prior to*</u> the NIRA.

<u>*But this relationship broke down after the NIRA is in effect.*</u>

This breakdown in the Cournot relationship between industry concentration and price cost margin *is presented as evidence of collusion*.

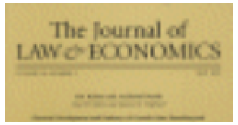
Did the NIRA Facilitate Collusive Outcomes?

Taylor (2007, 2011, 2017, 2019) employed industry-level panel data to examine whether the <u>growth rate in industry output and/or prices</u> was affected after the industry adopted its "code of fair competition."

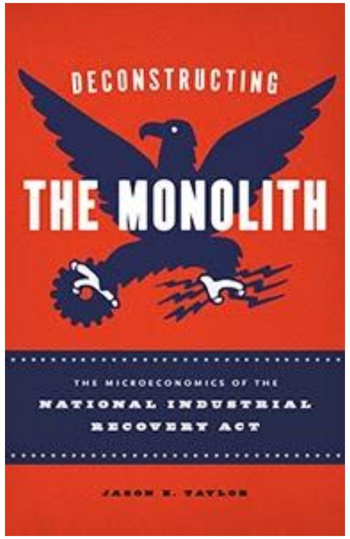
Broadly speaking, I do find evidence that the <u>NIRA *brought lower output and higher prices*</u> (consistent with collusion) in months following code passage.

Cartel Code Attributes and Cartel Performance: An Industry-Level Analysis of the National Industrial Recovery Act

Jason E. Taylor



The Journal of Law & Economics
Vol. 50, No. 3 (August 2007), pp. 597-624
(28 pages)



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Broadly speaking, I do find evidence that the NIRA *brought lower output and higher prices* (consistent with collusion) in months following code passage.

But most convincing evidence for collusion can be found when heterogeneity of codes is accounted for.

Split my 38-industry sample into industries whose codes were long or short

Coefficients show output declines when industry under and NIRA code, <u>BUT ONLY FOR</u> those with long codes.

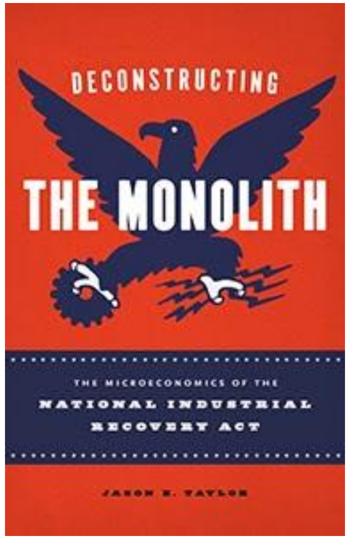

TABLE 5.6. Analysis of Growth in Industry Output in Short and Long Codes

	(1) Eighteen longest codes		(2) Twenty shortest codes	
	Coefficient	*p*	*Coefficient*	*p*
Intercept	0.0263	.00	0.0202	.06
President's Reemployment Agreement (August 1933 to code passage)	0.0057	.31	0.0174	.01
Industry-specific NIRA code (code passage to June 1935)	−0.0063	.03	0.0038	.23
Capacity utilization (−1)	−0.0400	.00	−0.0355	.04
Dependent variable (−1)	−0.0675	.20	−0.1171	.00
Growth rate in workweek				
Growth in wage rates				
Cross-sections	18		20	
Number of observations	2,510		2,282	

Notes: Dependent variable is growth rate in industry output less growth rate in index of gener
standard, industry fixed effects, and cross-section weights, which allow for the presence of cr
include 132 months of data, from January 1927 through December 1937. Output data are seasc

I find a similar effect with growth rate in prices. Prices rise significantly more in industries with long codes after NIRA code is adopted, when compared to industries with shorter codes.

TABLE 5.9. Analysis of Growth in Industry Prices in Short and Long Codes

	(1) All codes	(2) All codes	(3) Long codes	(4) Short codes
Intercept	−0.0041	−0.0038	0.0007	−0.0056
	(.00)	(.00)	(.48)	(.00)
President's Reemployment Agreement (August 1933 to code passage)	0.0080	−0.0087	−0.0298	−0.0003
	(.00)	(.10)	(.00)	(.96)
Industry-specific NIRA code (code passage to June 1935)	0.0019			
	(.01)			
Month code adopted		0.0069	0.0018	0.0074
		(.16)	(.72)	(.37)
Code adoption + 1 month		0.0220	0.0427	0.0144
		(.00)	(.00)	(.02)
Code adoption + 2 months		0.0251	0.0486	0.0146
		(.00)	(.00)	(.02)
Code adoption + 3 months		0.0196	0.0505	0.0099
		(.02)	(.02)	(.06)
Code adoption + 4 months		0.0183	0.0221	0.0153
		(.00)	(.01)	(.02)
Code adoption + 5 months		0.0061	0.0214	-0.0000
		(.27)	(.19)	(.99)
Code adoption + 6 months		0.0058	0.0109	0.0039
		(.07)	(.24)	(.14)
Macro controls	Yes	Yes	Yes	Yes
Cross-sections	24	24	10	14
Number of observations	2,976	2,844	1,158	1,686

Notes: Dependent variable is growth rate in industry prices; *p*-values are reported in parentheses.

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I believe that this demonstrates the causality of the NIRA cartel aspects themselves being responsible for the negative supply shock.

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The Macroeconomic Cost of Collusion: Lessons from the NIRA

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Between March and July 1933: Manufacturing production rose 78%, Industrial Production up 57%, Dow Jones Industrial Average up 71%.

This followed from a series of FDR's "New Deal" policy reforms: Banking reforms, leaving the gold standard, devaluing the dollar, and legalizing 3.2% beer.

In short, a sharp rise in inflation expectations and national confidence broke the back of the Depression.

The Macroeconomic Cost of Collusion: Lessons from the NIRA

After Roosevelt took office in March 1933, the economy experienced an incredibly sharp recovery.

Between March and July 1933: Manufacturing production rose 78%, Industrial Production up 57%, Dow Jones Industrial Average up 71%.

However, this recovery came to a screeching halt in August 1933… when the NIRA provisions began to take effect en masse.

US Recovery on Hold During NIRA: Resumes When it Ends

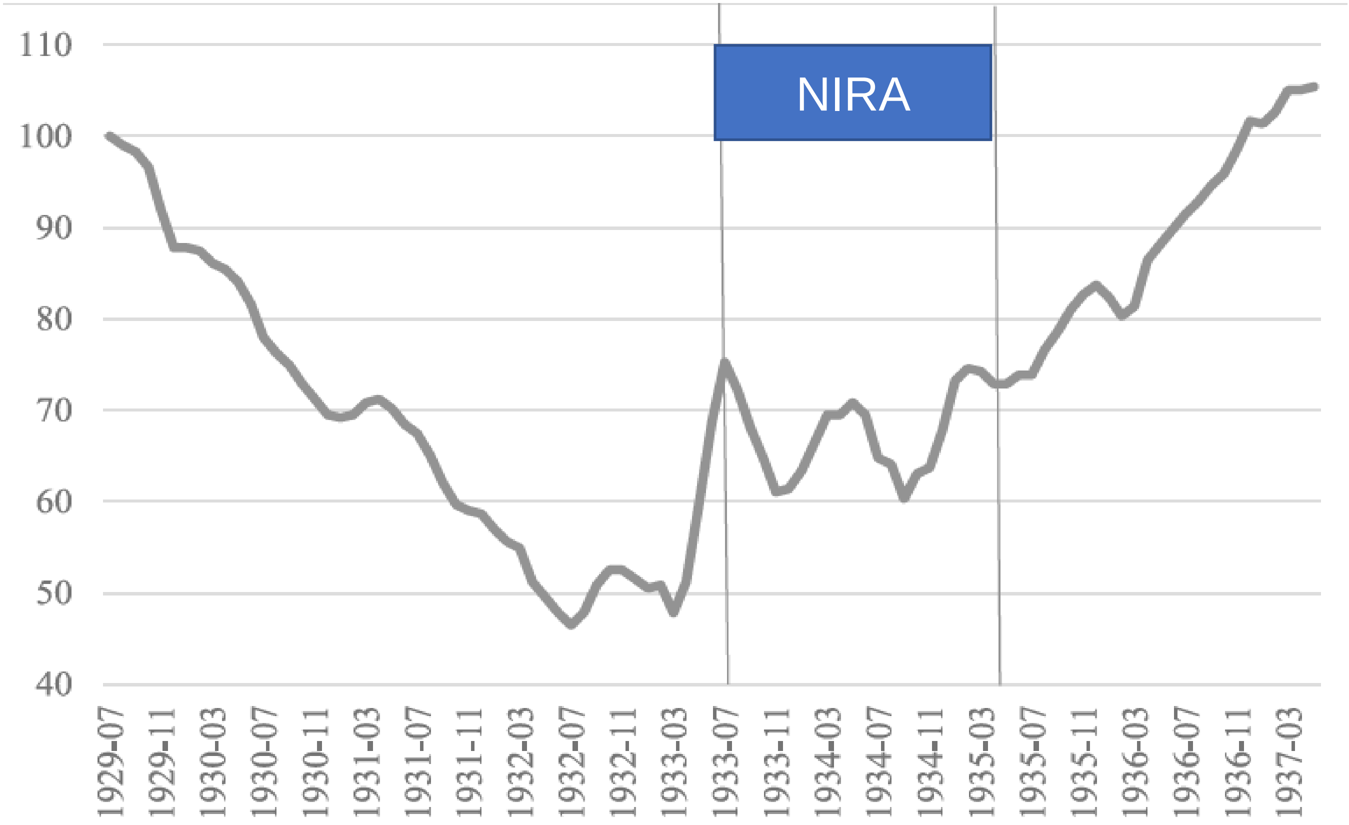

FIGURE 9.1. Index of Industrial Production, July 1929–May 1937

Notes: The two lines at July 1933 and June 1935 mark the start and end of the NIRA.

Source: Federal Reserve Industrial Production and Capacity Utilization (G.17), Major Industry Groups, series B50001.S (seasonally adjusted).

The NIRA’s Demise was Largely Cheered in May 1935

The *Denver Post* called the *Schechter* ruling “the most reassuring development this country has experienced in many a year” as it will “loosen the bureaucratic brakes which have been clamped on business and individual initiative.”

New York Times: “Leading bankers and industrialists characterized the decision on the NRA as ‘the best thing in years.’”

The Macroeconomic Cost of Collusion: Lessons from the NIRA

A <u>very broad consensus </u>exists amongst economic historians that the NIRA was a contractionary policy that extended the Depression.

The Macroeconomic Cost of Collusion: Lessons from the NIRA

New Deal Policies and the Persistence of the Great Depression: A General Equilibrium Analysis

Harold L. Cole and Lee E. Ohanian

Journal of Political Economy
Vol. 112, No. 4 (August 2004), pp. 779-816
(38 pages)

Published by: The University of Chicago Press

Cole and Ohanian (2004) directly attribute the weak recovery of the 1930s to the NIRA's cartelization and high-wage policies.

They employ a DSGE model that incorporates the NIRA's cartel and high wage aspects and show that simulations of this model come closer to the actual data than do simulations of a competitive model.

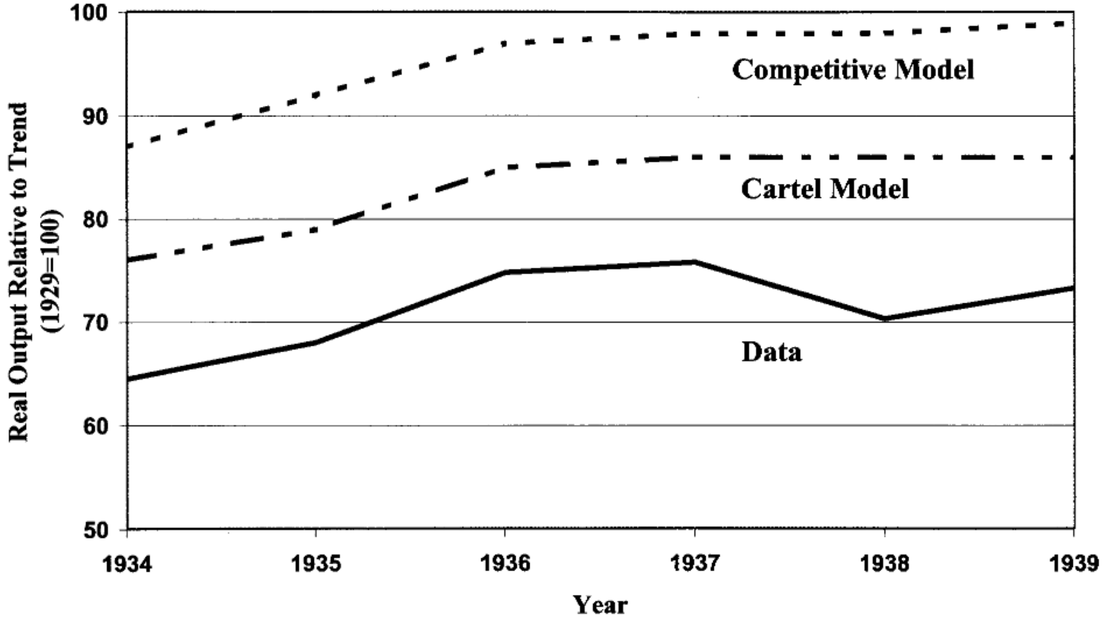

FIG. 2.—Output in the data and in the models

The Macroeconomic Cost of Collusion: Lessons from the NIRA

Cole and Ohanian (2004) directly attribute the weak recovery of the 1930s to the NIRA's cartelization and high-wage policies.

Taylor and Neuman (2016) show that the NIRA was directly responsible for derailing the promising recovery of the spring 1933, and hence lengthened the Great Depression.

Show that industries where NIRA rules were most "binding" were also most negatively affected with respect to output and employment.

The Macroeconomic Cost of Collusion: Lessons from the NIRA

Eggertsson (2008, 2012) offers a counterview of the NIRA.

He argues that given the nation was in a deflationary spiral in 1933, anything (including the NIRA) that was expected to raise prices (and inflation expectations) was an expansionary policy.

Great Expectations and the End of the Depression

By Gauti B. Eggertsson

AER 2008

Conclusion

Can collusion be a macroeconomic tonic? During the Great Depression, US policy makers were desperate to try anything.

Unfortunately, the NIRA undid the outstanding economic progress that many other policies had brought in the spring of 1933.

Most pertinent to this conference, the historical application of government sponsored cartels in the United States only **enhances the point that collusion harms economic welfare … and this is true even in times of economic depression.**