

Real Origins of the Great Depression

Monopoly Power, Unions and the Interwar Business Cycle

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May 2007

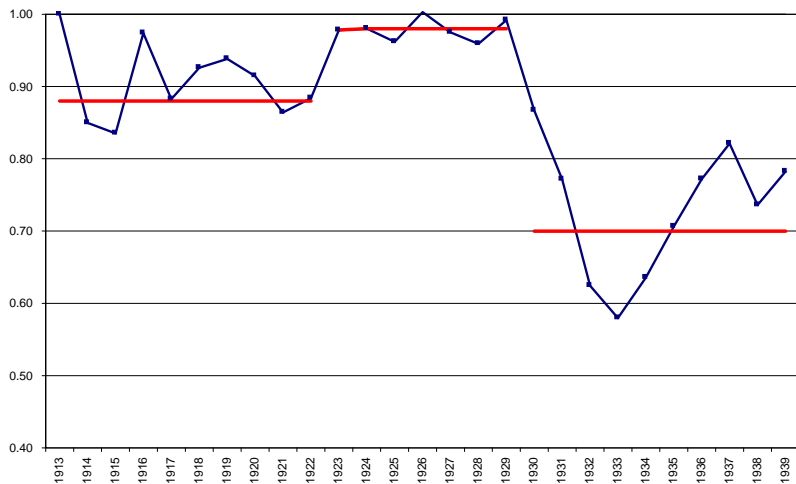
The Interwar Business Cycle

Standard & Poors Index 1913-1936



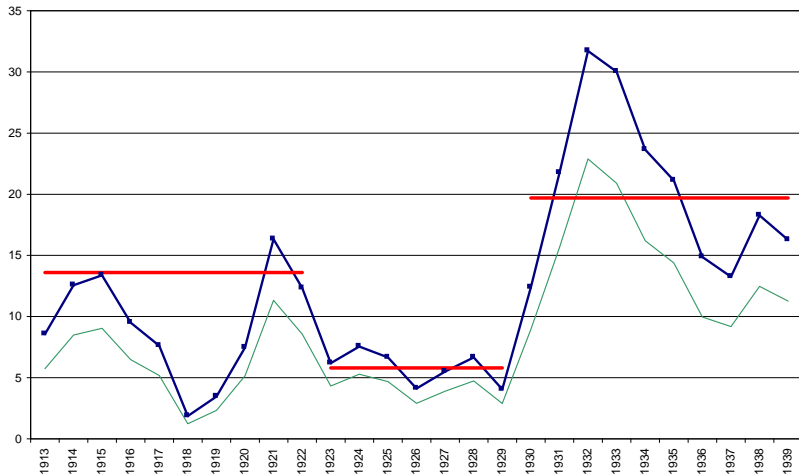
The Interwar Business Cycle

Real Private Non-Farm GNP as % of Trend 1913-1939



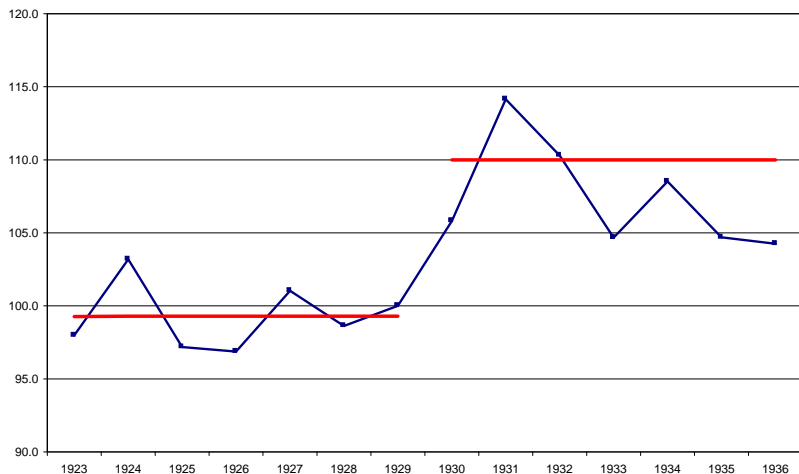
The Interwar Business Cycle

Non-Farm Unemployment 1913-1939



The Interwar Business Cycle

Real Manufacturing Wages as % of Trend 1923-36



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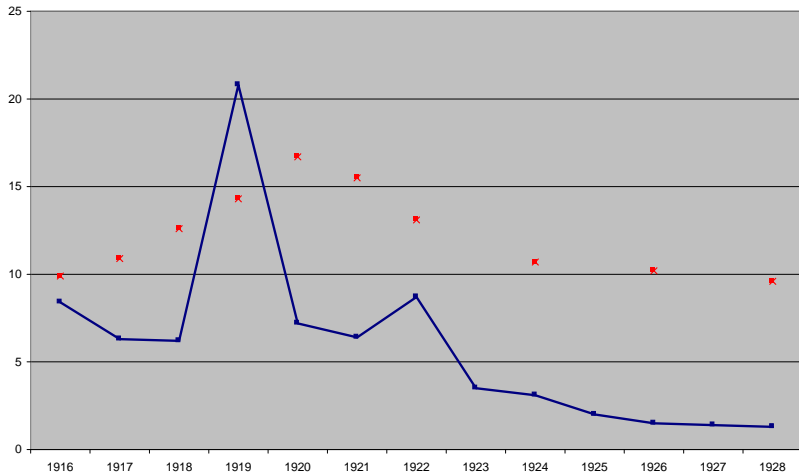
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Indicators of Union Activity 1916-1928



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- **May 1929**

Texas & N.O. ruling. Stock market recommences its decline.

FEARS NEW CURBS ON LABOR WRITS

Counsel Tells Manufacturers
Congress Is Planning New
"Assaults" on Judiciary.

BACKS INJUNCTION POWER

J. A. Emery Also Assails Limiting
of Flexible Tariff Provision at
National Meeting Here.

The National Association of Manu-
facturers, in convention at the Hotel

LABOR'S "MAGNA CARTA" DRAFTED FOR CONGRESS

Anti-Injunction Bill of the A. F. of L. Is Designed to Assure Workers the Right to Strike and to Picket, and the Same Liberty as Farmers to Combine

By LOUIS STARK.

NINE days ago in Toronto the forty-ninth annual convention of the American Federation of Labor opened a new chapter in the struggle for "labor's Magna Carta." On that day, and with but one dissenting vote, the convention adopted a proposal for relief from the use of the injunction that, in the opinion of those who drew it up, is the "furthest north" that such measures have gone.

With the passage of the report of the resolutions committee, labor threw down the gauntlet to its opponents in the form of a bill that will be introduced at the next session of Congress. This bill, the result of intensive study for the last year, is based upon experiences with many ill-fated anti-injunction measures during a third of a century.

Designed to free labor from the shackles of company unionism, the "yellow dog" contract and the court decisions limiting the right to organize, to strike and to picket, the proposed measure was drawn in consultation with legal counsel by the American Federation of Labor and

and (or) interested in a labor dispute; carrying on the routine business of a union or a strike, such as payment of strike or unemployment benefits, assisting in the defense of strikers, giving publicity to the facts of a dispute, holding a meeting in the interest of a dispute, or causing any of the foregoing acts without fraud or physical violence.

The bill would also invalidate the court's jurisdiction upon the ground that persons engaged in a labor dispute are not engaged in "any unlawful combination or conspiracy." Provision is also made for issuance of temporary or permanent injunctions only after the hearing of testimony of witnesses in open court

is charged with contempt for violation of a restraining order in a case arising out of a labor dispute, the proposed measure would assure the accused a speedy and public trial by a jury of the State and district where the alleged contempt is committed, but this does not apply to a contempt committed in the presence of the court or so near to it as to interfere with the administration of justice.

In concluding the presentation of its report the executive council, headed by President William Green, stated: "Our purpose should and must be that Congress clearly and in unmistakable language and legislation shall manifest its regard for and interest in the rights of labor to organize, to federate and by collective action to protect and to promote labor's community of interest and by that method and procedure usher in a better, fairer and more wholesome industrial order and industrial relationship."

John Frey, one of the three members of the committee appointed a year ago to frame the bill, informed the convention that more than

WILLIAM GREEN



- In his decision, Supreme Court Chief Justice Hughes writes for the majority:

“The legality of collective action on the part of employees in order to safeguard their proper interest is not to be disputed.”

- In an article published in the AER 12/30, Edward Berman writes:

“The Supreme Court’s decision in the Texas and N.O. Railroad case is without doubt one of the most important rendered in a labor case in many years. Considered as a whole, it may be regarded as a great victory for organized labor. . . . It puts the Supreme Court on record in favor of legislation designed to promote collective bargaining. It promises that the court will, in the future, be more friendly to state and federal legislation designed to protect workers from the coercive activities of anti-union employers. ”

“The Supreme Court has in the present decision made a very considerable extension of the constitutional boundaries within which social legislation has heretofore been confined.”

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- Complete asset markets, risk-neutral agents

- Collective bargaining wage contains a profit share

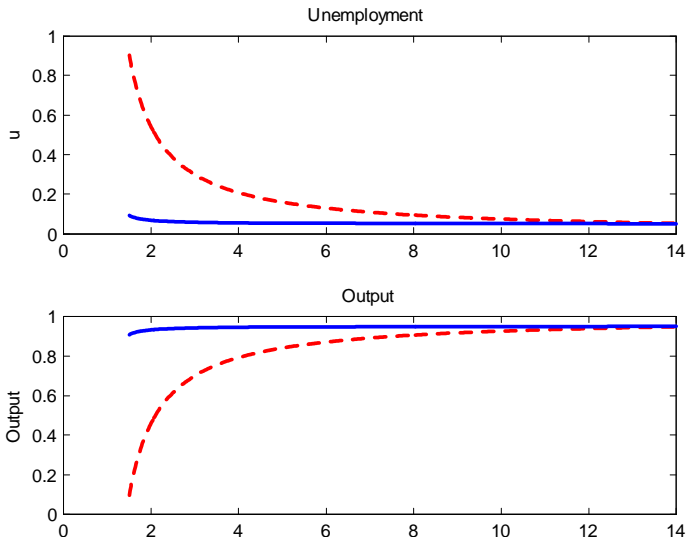
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- Output gap between IB and CB increasing in monopoly power.

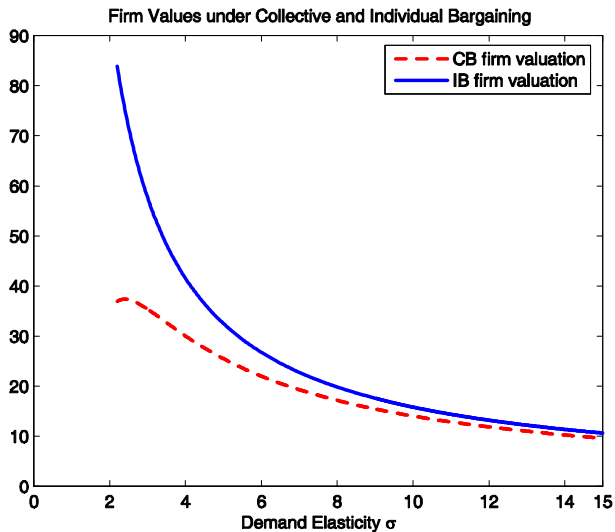
Output and Unemployment

Collective vs. Individual Bargaining



Firm Values

Collective vs. Individual Bargaining



- "Business Cycle" due to shifts between steady states

New Paradigm

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- Ebell and Haefke (Europe vs US in 90s)

- 1 Introduction and Historical Background
- 2 Model
- 3 Quantitative Results
- 4 A Counterfactual

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- Demand function facing firm i :

$$y_i = \left(\frac{p(y_i)}{P} \right)^{-\sigma} Y$$

- Matching function

$$m(U, V) = mU^\eta V^{1-\eta}$$

Labor Market Search Frictions

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- Beveridge Curve

$$U \cdot f(\theta) = (1 - U) \chi$$

$$U = \frac{\chi}{\chi + f(\theta)}$$

- Value of unemployment

$$V_{U,k} = b + \frac{1}{1+r} [f_k V'_{E,k} + (1 - f_k) V'_{U,k}]$$

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$$V_{U,k} = b + \frac{1}{1+r} [f_k V'_{E,k} + (1-f_k) V'_{U,k}]$$

- Value of employment in bargaining regime $k \in \{I, C\}$

$$V_{E,k} = w_k + \frac{1}{1+r} [\chi V'_{U,k} + (1-\chi) V'_{E,k}]$$

where χ is the exogenous separation rate.

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- Nash bargaining problem

$$\max_{w_C, h_C} \mu \ln h_C V_{W,C} + (1 - \mu) \ln V_{J,C}$$

where

$$V_{J,C} = y_C \frac{p(y_C)}{P} - w_C h_C - \kappa v_C$$

- Bargained wage

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- Workers only prefer CB if monopoly power sufficiently high

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- Firm's Problem

$$V_I(h_I) = \max_{v_I} \left\{ \frac{p(y_I)}{P} y_I - w_I h_I - \kappa v_I + \frac{1}{1+r} V_I(h'_I) \right\}$$

subject to

demand: $\frac{p(y_I)}{P} = \left(\frac{y_I}{Y} \right)^{-\frac{1}{\sigma}}$

transition: $h'_I = (1 - \chi) h_I + v_I q_I$

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- FOC

$$\frac{\kappa}{q(\theta_I)} = \frac{1}{1+r} \frac{\partial V_I(h'_I)}{\partial h'_I}$$

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$$V_I(h_I) = \max_{v_I} \left\{ \frac{p(y_I)}{P} y_I - w_I h_I - \kappa v_I + \frac{1}{1+r} V_I(h'_I) \right\}$$

subject to

demand: $\frac{p(y_I)}{P} = \left(\frac{y_I}{Y}\right)^{-\frac{1}{\sigma}}$

transition: $h'_I = (1 - \chi) h_I + v_I q_I$

bargaining: $w_I = w_I(h_I)$

- FOC

$$\frac{\kappa}{q(\theta_I)} = \frac{1}{1+r} \frac{\partial V_I(h'_I)}{\partial h'_I}$$

- Euler Equation

$$\frac{\kappa}{q(\theta_I)} = \frac{1}{1+r} \left[\frac{\sigma - 1}{\sigma} A \frac{p(y'_I)}{P} - w_I(h'_I) - h'_I \frac{\partial w'_I}{\partial h'_I} + (1 - \chi) \frac{\kappa}{q(\theta'_I)} \right]$$

Individual Bargaining

- Nash bargaining problem

$$\max_{w_l} \mu \ln V_{W,l} + (1 - \mu) \ln \frac{\partial V_l}{\partial h_l}$$

where

$$\frac{\partial V_l}{\partial h_l} = \frac{1+r}{r+\chi} \left[\frac{\sigma-1}{\sigma} A \frac{p(y_l)}{P} - w_l(h_l) - h_l \frac{\partial w_l}{\partial h_l} \right]$$

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- Wage Curve

$$w_I = rV_U + \mu \frac{\sigma-1}{\sigma-\mu} A \frac{p(y_I)}{P}$$

$$h_I \frac{\partial w_I}{\partial h_I} = -\frac{\mu \sigma - 1}{\sigma \sigma - \mu} A \frac{p(y_I)}{P} < 0$$

- Substitute in for $h_I \frac{\partial w_I}{\partial h_I}$ in Euler equation to get labor demand

$$w_I = \frac{\sigma - 1}{\sigma - \mu} A \frac{p(y_I)}{P} - (r + \chi) \frac{\kappa}{q(\theta_I)}$$

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- Hiring externality

$$\underbrace{w_l + (r + \chi) \frac{\kappa}{q(\theta_l)}}_{\text{employment costs}} = \underbrace{\frac{\sigma}{\sigma - \mu}}_{>1} \underbrace{\frac{\sigma - 1}{\sigma} A \frac{p(y_l)}{P}}_{\text{MRP}}$$

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- Why? Adding a worker depresses the wages of all workers. [Stole and Zwiebel (AER, REStud 1996)]

- Wage curve

$$w_I = \frac{r}{1+r} V_U + \phi \frac{\sigma - 1}{\sigma - \mu} A \frac{p(y_I)}{P}$$

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- Bargained wage

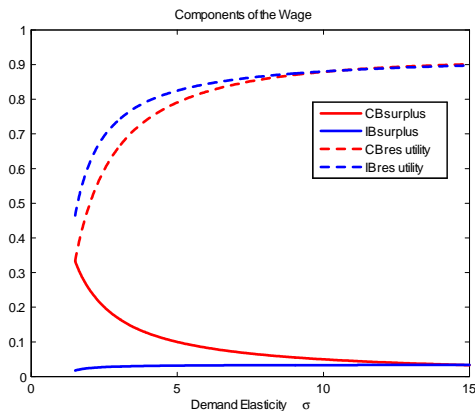
$$w_l = \frac{r}{1+r} V_U + \frac{\mu}{1-\mu} (r+\chi) \frac{\kappa}{q(\theta_l)}$$

Collective vs. Individual Bargaining

- Collective bargaining wage includes a profit component decreasing in σ

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- Individual bargaining wage includes a share of search rents increasing in σ



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- Market clearing

- Collective Bargaining

$$A = \frac{(r + \chi) \sigma}{(r + \chi) (\sigma - 1) - \mu f(\theta_C)} \left[b + \frac{\kappa}{q(\theta_C)} \chi \right]$$

- Collective Bargaining

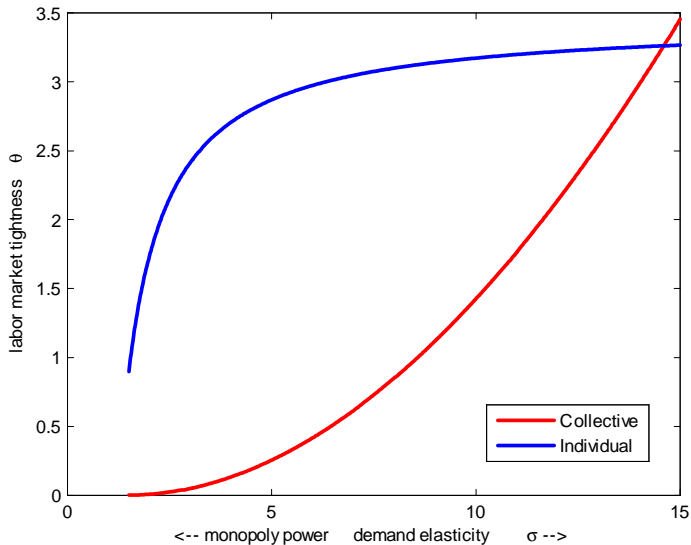
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- Individual Bargaining

$$A = \frac{\sigma - \mu}{\sigma - 1} \left[b + \frac{\mu}{1 - \mu} \kappa \theta_I + \frac{1}{1 - \mu} \frac{\kappa}{q(\theta_I)} (r + \chi) \right]$$

Parameter	Value	Target
A	1.0	normalization
β	0.99	4% annual r
η	0.50	empirical estimates
μ	0.50	Hosios condition
b/w	0.30	post-war $b/w \geq 0.40$
χ	0.118	BLS data
κ	0.19	perf. comp. $u = 5.0\%$

Equilibrium Tightness



- Unemployment from Beveridge Curve

$$U_k = \frac{\chi}{\chi + f(\theta_k)}$$

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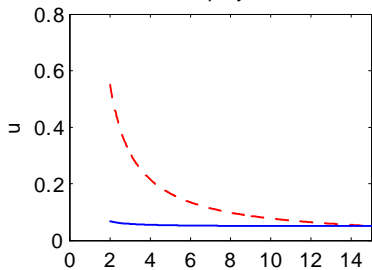
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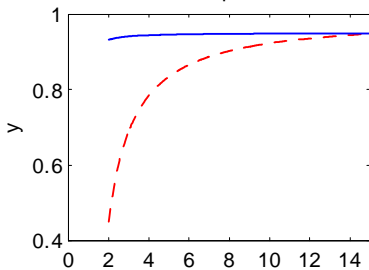
- Aggregate output

$$Y_k = AH_k$$

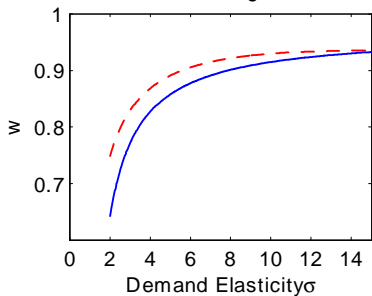
Unemployment



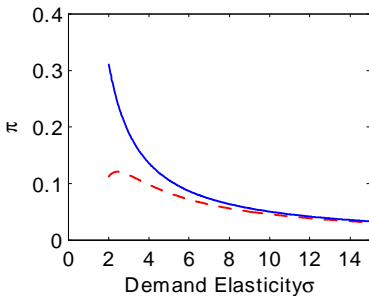
Output



Real Wages



Profits

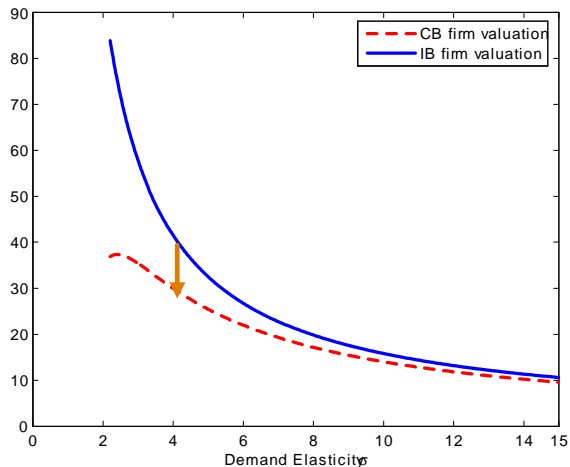


- 1 Choose demand elasticity σ to match asset price movements.

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- 2 What are the implied macro movements?

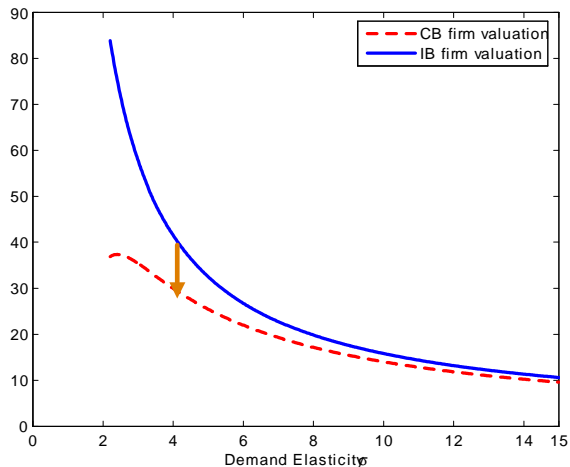
Clayton Act 1914-21

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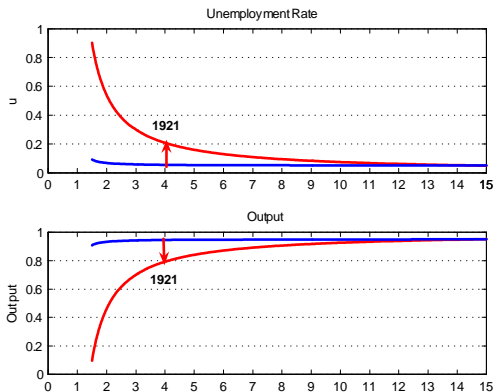
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- 1 Assume asset market slide in Dow caused by shift from IB \rightarrow CB.
 - $\sigma_{1921} = 4.0$, corresponds to markup of 16.7%



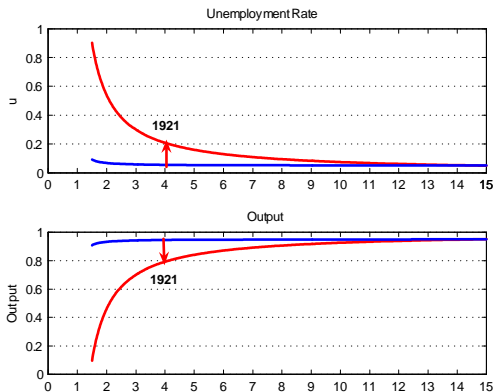
Clayton Act 1914-21

- Macro impact of a switch from IB \rightarrow CB at $\sigma_{1921} = 4.0$?



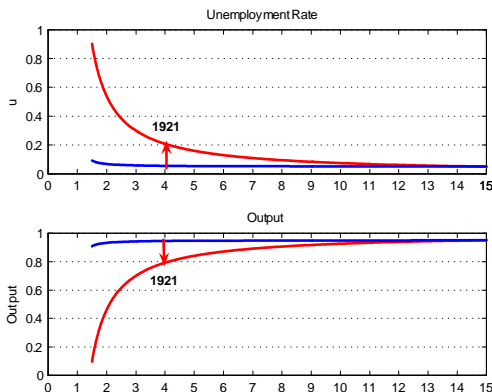
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[Data: peaks at 16.3 % in 1921]

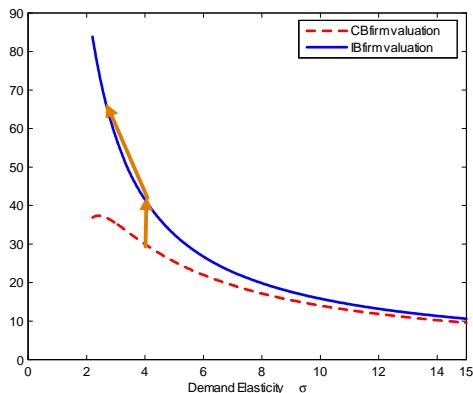


Clayton Act 1914-21

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[Data: peaks at 16.3 % in 1921]
- Output decreases by 17.0 %
[Data: 14% drop by 1921]

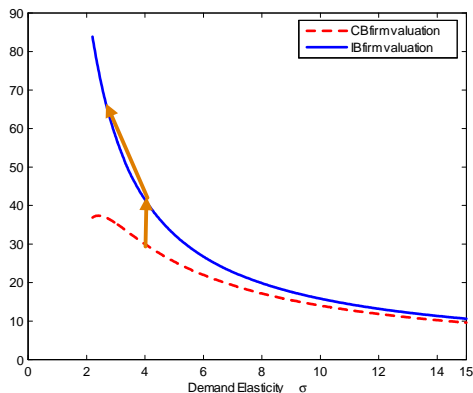


2 Assume roaring 20s asset market boom caused by:



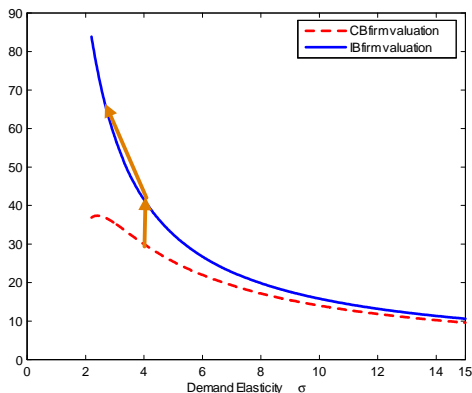
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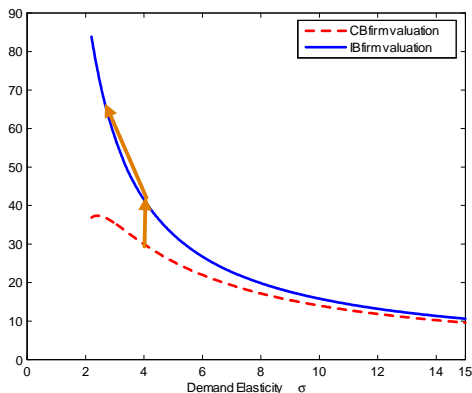
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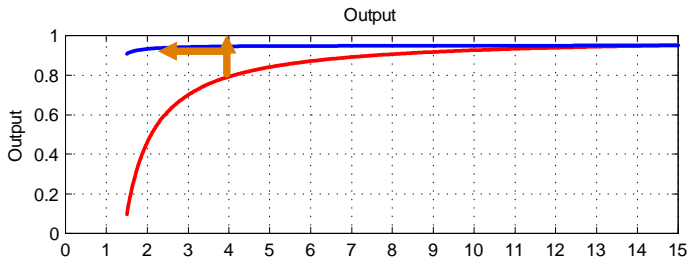
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 - Real wages decline
[Data: labor's share of income declines by about 6 percentage points]

Laissez Faire 1922-29



Implications for the Great Depression

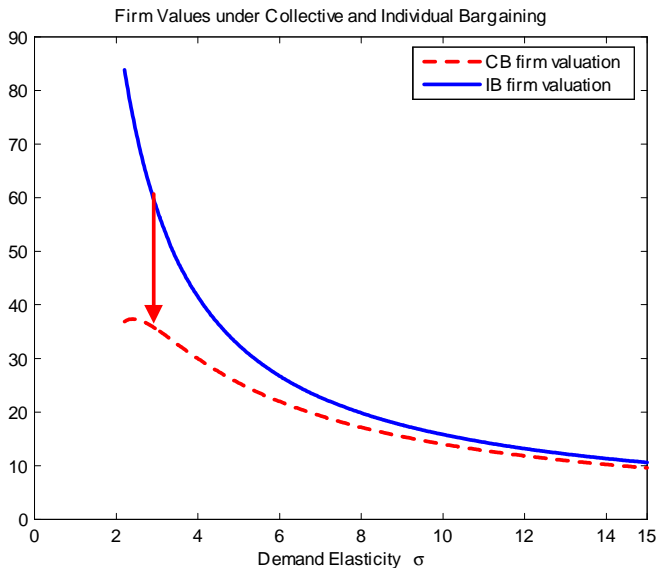
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 - Asset prices decline by about 35 %
[Data:HP-trend asset prices decline by about 33%]

Implications for the Great Depression



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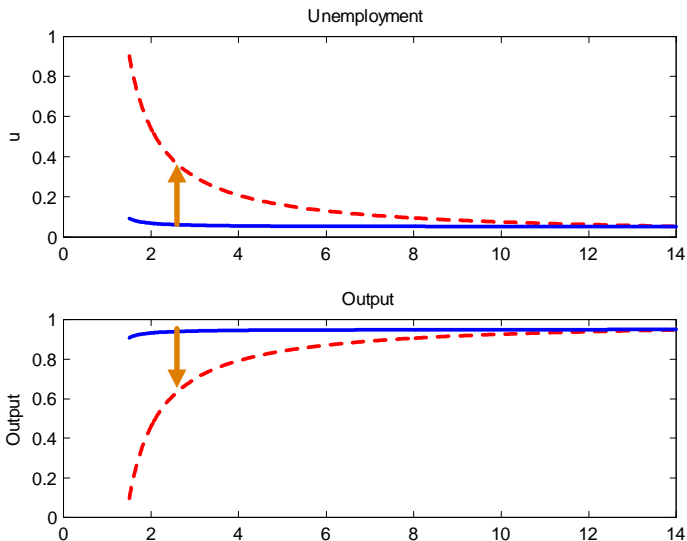
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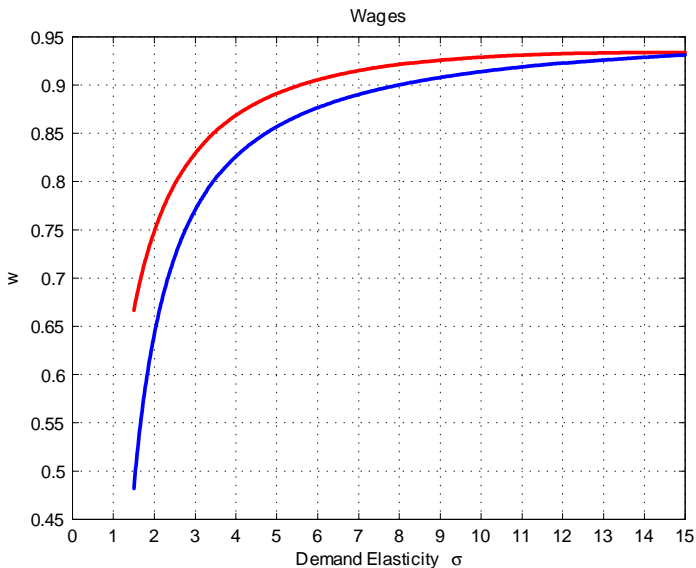
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 - Unemployment rises to 36%
[Data: rises to 21.7% in 1931, 31.7% in 1932]
 - Real wages rise by 9.6%
[Data: in manufacturing rise by 9-14% between 1929 and 1931]

Implications for the Great Depression



Implications for the Great Depression



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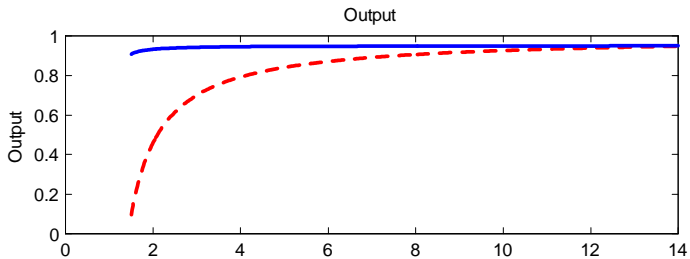
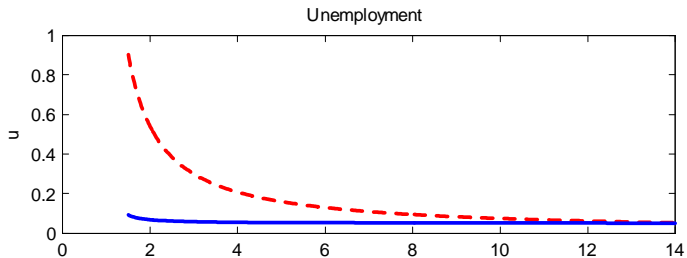
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 - If stay with IB: no recession, slight expansionary effect



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- 3 Document role of pro-union court decisions and legislative efforts in 1929 and 1930.

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- Crony capitalism and repressive regimes

