

LECTURE 2

OVERVIEW OF THE GREAT DEPRESSION

January 22, 2018

I. THE 1920s

- A. GDP growth and inflation
- B. Rising inequality
- C. Stock price increases

II. THE GREAT DEPRESSION

- A. Centered in the U.S., but spread to the rest of the world
- B. Stock market crash
- C. Financial panics, the decline in the money supply, and deflation
- D. Fiscal policy
- E. International factors
- F. Severity of the downturn

III. THE RECOVERY FROM THE GREAT DEPRESSION

- A. Timing and strength
- B. Monetary policy at the zero lower bound
- C. Fiscal expansion
- D. The recession of 1937-38
- E. World War II
 - 1. Impact of the fiscal expansion
 - 2. Consequences of rising debt

IV. INTRODUCTION TO POSTWAR MACROECONOMIC FLUCTUATIONS

- A. Basic facts: The behavior of real GDP and unemployment
- B. Recessions
 - 1. What is a recession?
 - 2. Postwar recessions
 - 3. The 3 largest postwar recessions before the Great Recession
- C. The labor market in recessions
 - 1. Okun's law
 - 2. The sources of Okun's law
- D. Short-run fluctuations and the components of output

LECTURE 2

Overview of the Great Depression



January 22, 2018

Announcements

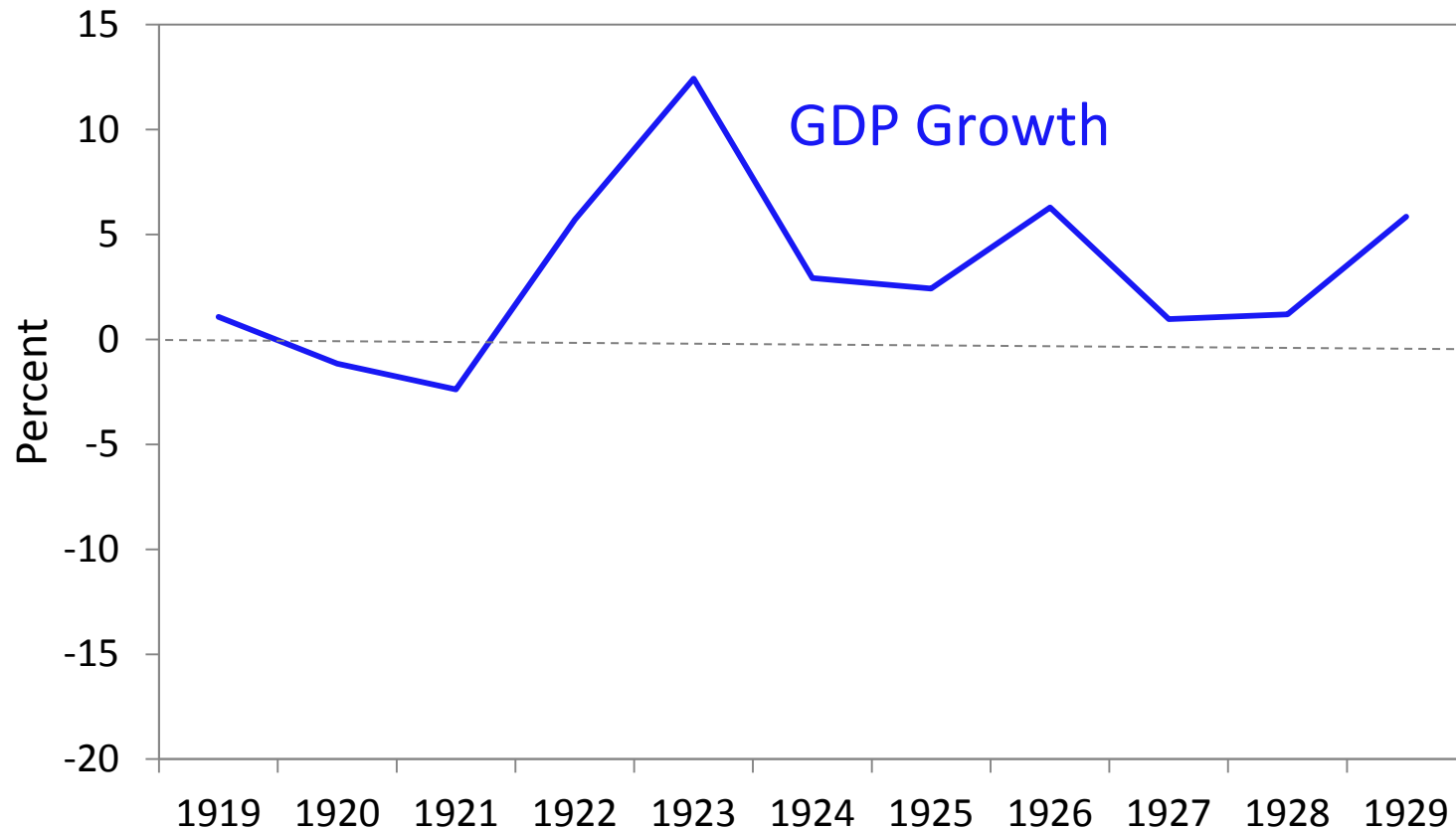
- A second reader, which contains the outside readings that are available online and is optional, is now available at Copy Central.
- You can order it in person at Copy Central, or online at <https://copycentral.redshelf.com/book/842423/econ-134-vol-2-optional-reading-macroeconomic-policy-from-the-great-depression-to-today-842423-none-romer>
- The price is \$29.50.

I. THE 1920s

By the 1920s:

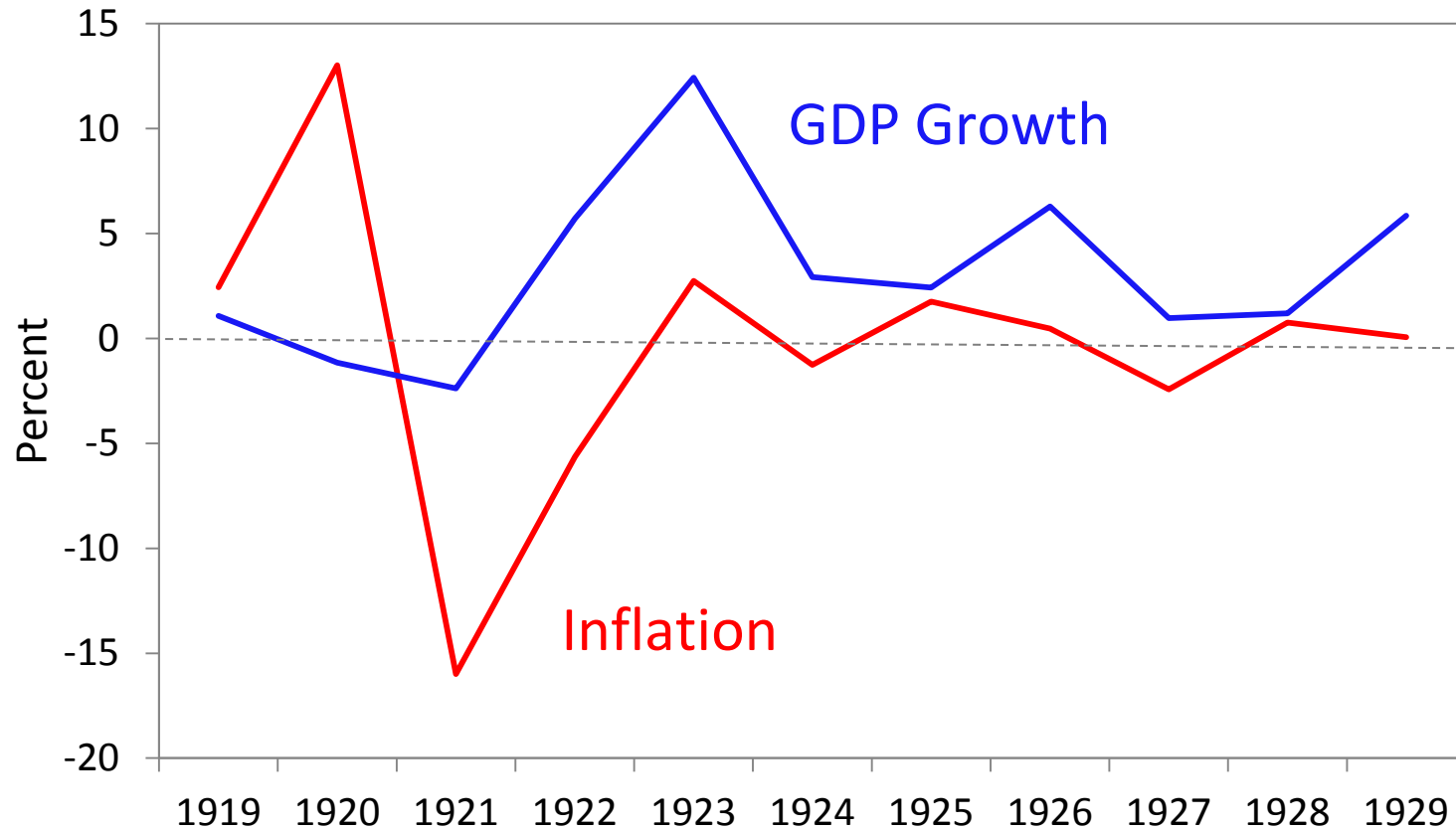
- The U.S. economy was no longer primarily agricultural.
- There was substantial nominal rigidity.
- Monetary policy was determined by the Federal Reserve.
- Federal revenues and spending were large enough that they could have a substantial impact on the economy.

Real GDP Growth, 1919-1929

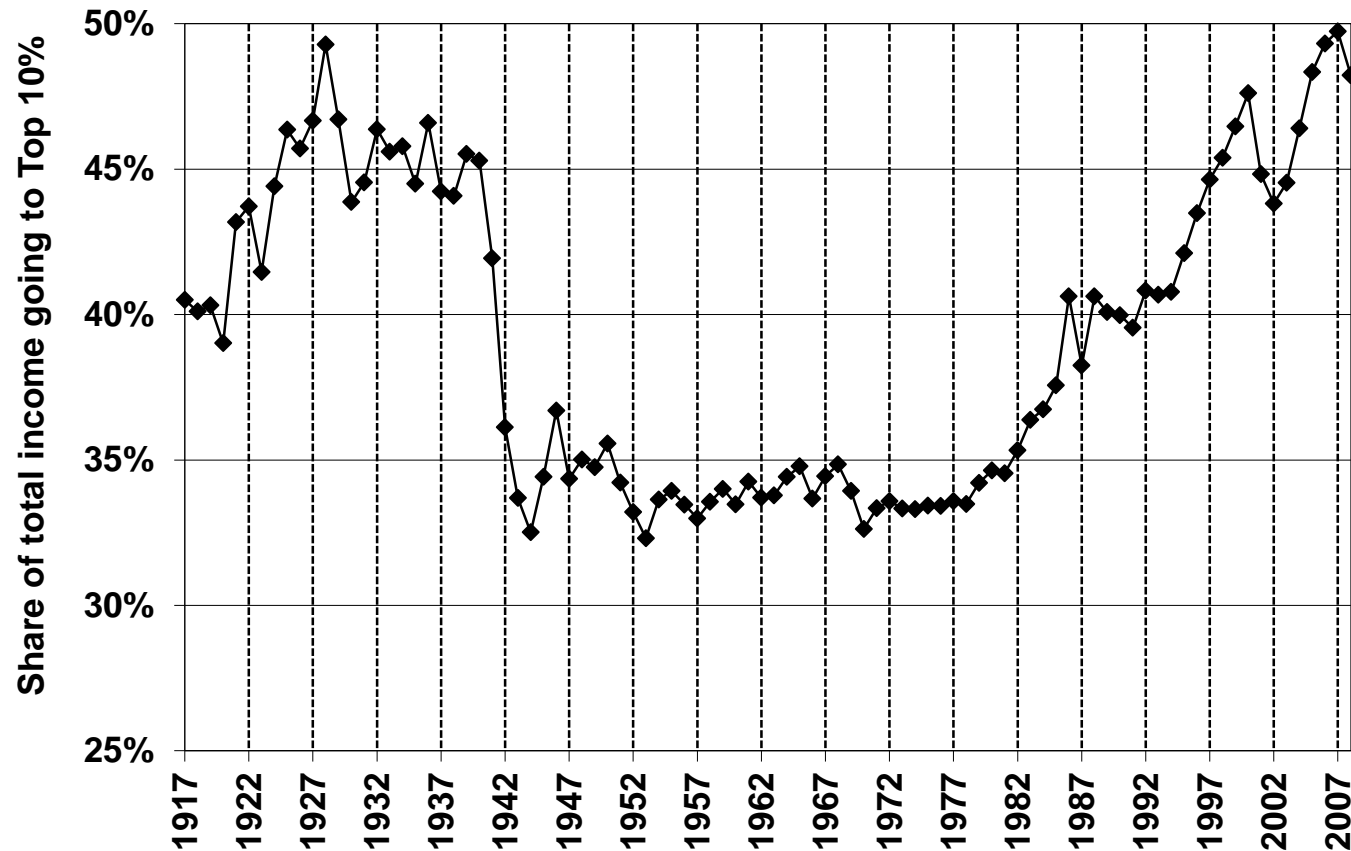


Issue: Was GDP growth above the growth rate of potential output?

Real GDP Growth and Inflation 1919-1929

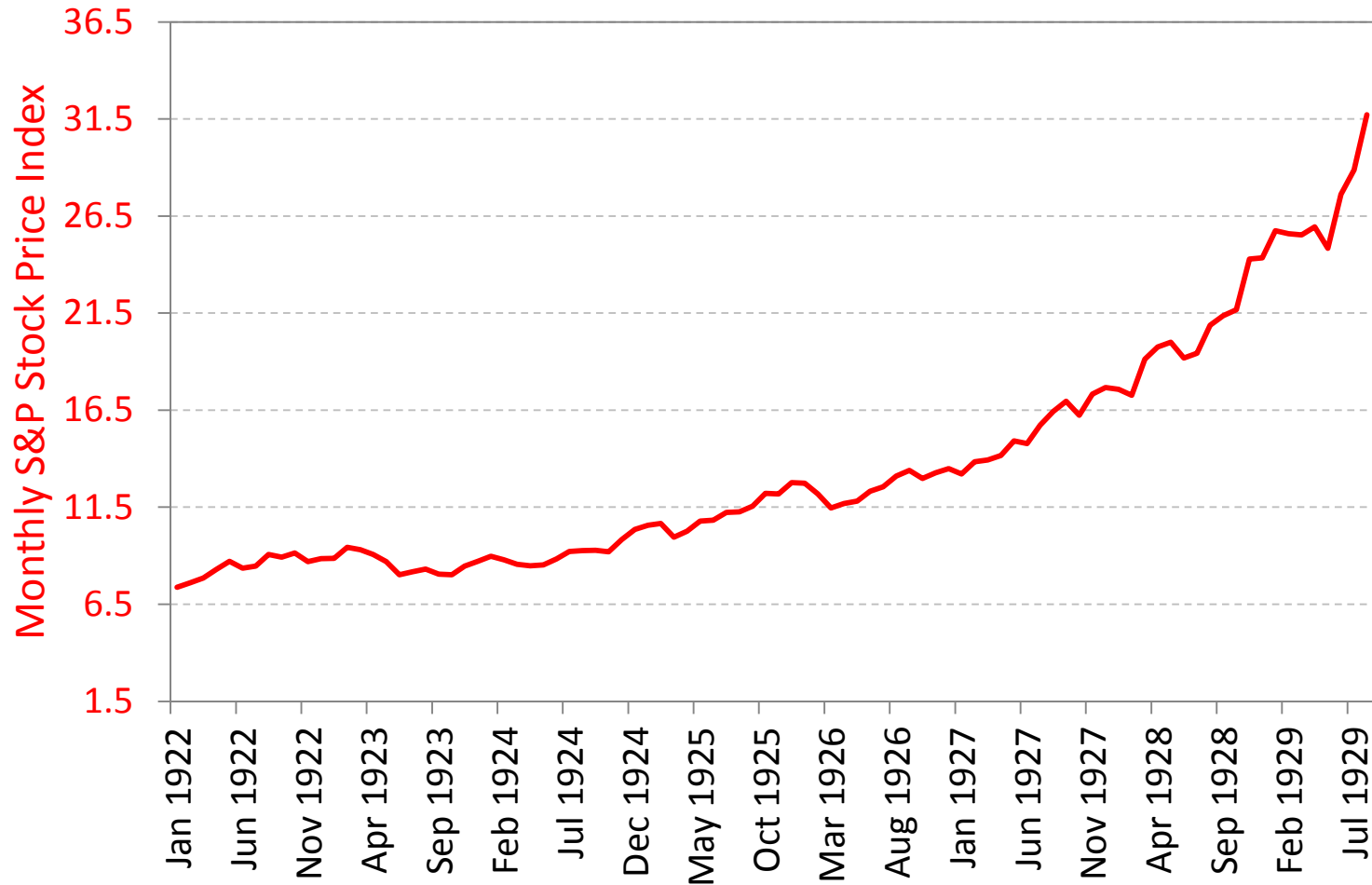


Income Inequality in the United States



Issue: What effect might increasing inequality have on short-run fluctuations?

Stock Prices, 1922:1-1929:8

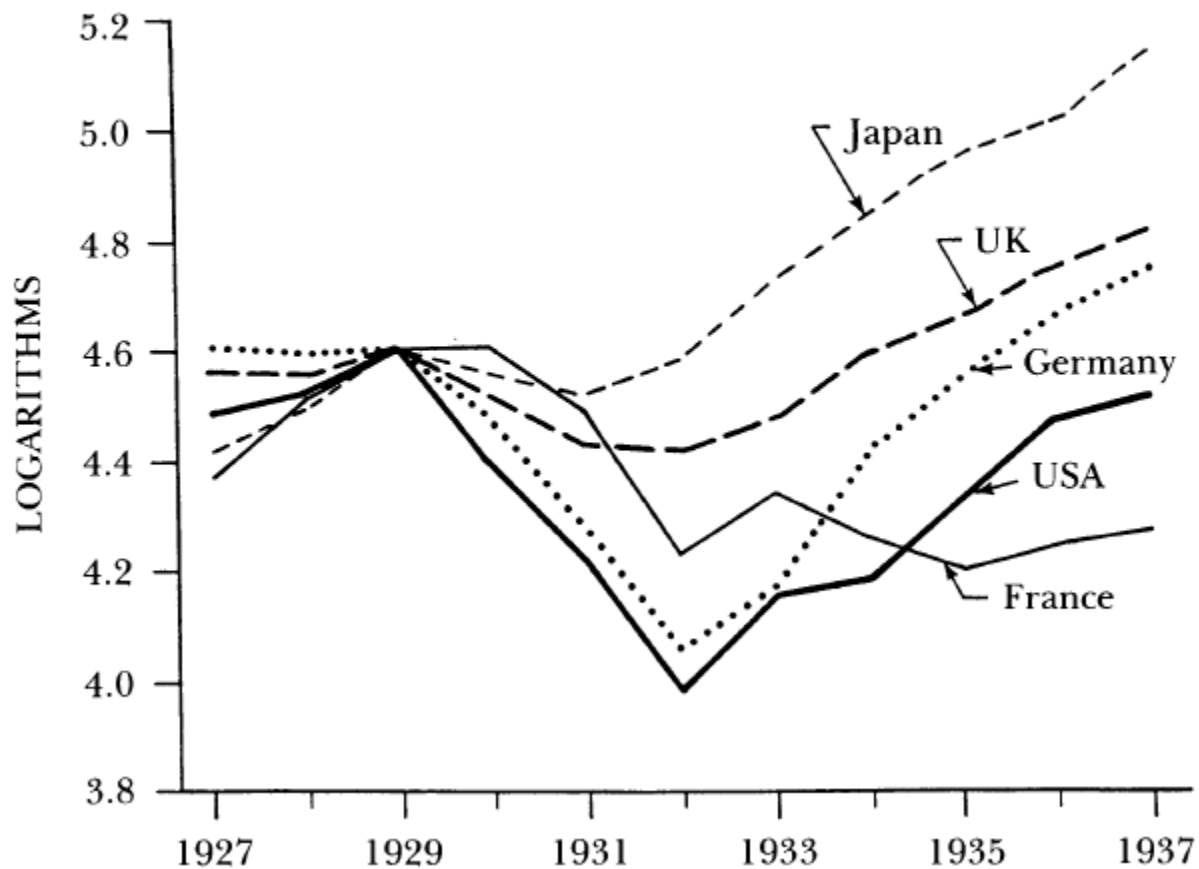


Issue: What do we mean by a bubble?

II. THE GREAT DEPRESSION

Figure 1

Annual Industrial Production in Five Countries, 1927–1937



Depression was worldwide, but likely began in the U.S.

*Table 1***Distribution of the Percentage Change in Industrial Production**

<i>A. 1930</i>	
<i>Percentage Change</i>	<i>Countries</i>
5.1 to 10%	Denmark, South Africa, New Zealand
0.0 to 5%	Chile, France, Greece, Norway, Sweden
-0.1 to -5%	Estonia, Romania
-5.1 to -10%	Finland, Hungary, Italy, Japan, Netherlands, UK
-10.1 to -15%	Belgium, Czechoslovakia, Germany
-15.1 to -20%	Austria, Canada, Poland
-20.1 to -25%	USA

<i>B. Peak to Trough</i>	
<i>Percentage Change</i>	<i>Countries</i>
-0.1 to -10%	Greece, Japan, New Zealand
-10.1 to -20%	Denmark, Romania, Sweden, UK
-20.1 to -30%	Chile, Estonia, Finland, Hungary, Norway
-30.1 to -40%	Belgium, France, Italy
-40.1 to -50%	Austria, Netherlands
-50.1 to -60%	Canada, Czechoslovakia, Germany
-60.1 to -70%	Poland, USA

Depression was faster, larger, and longer in the U.S.

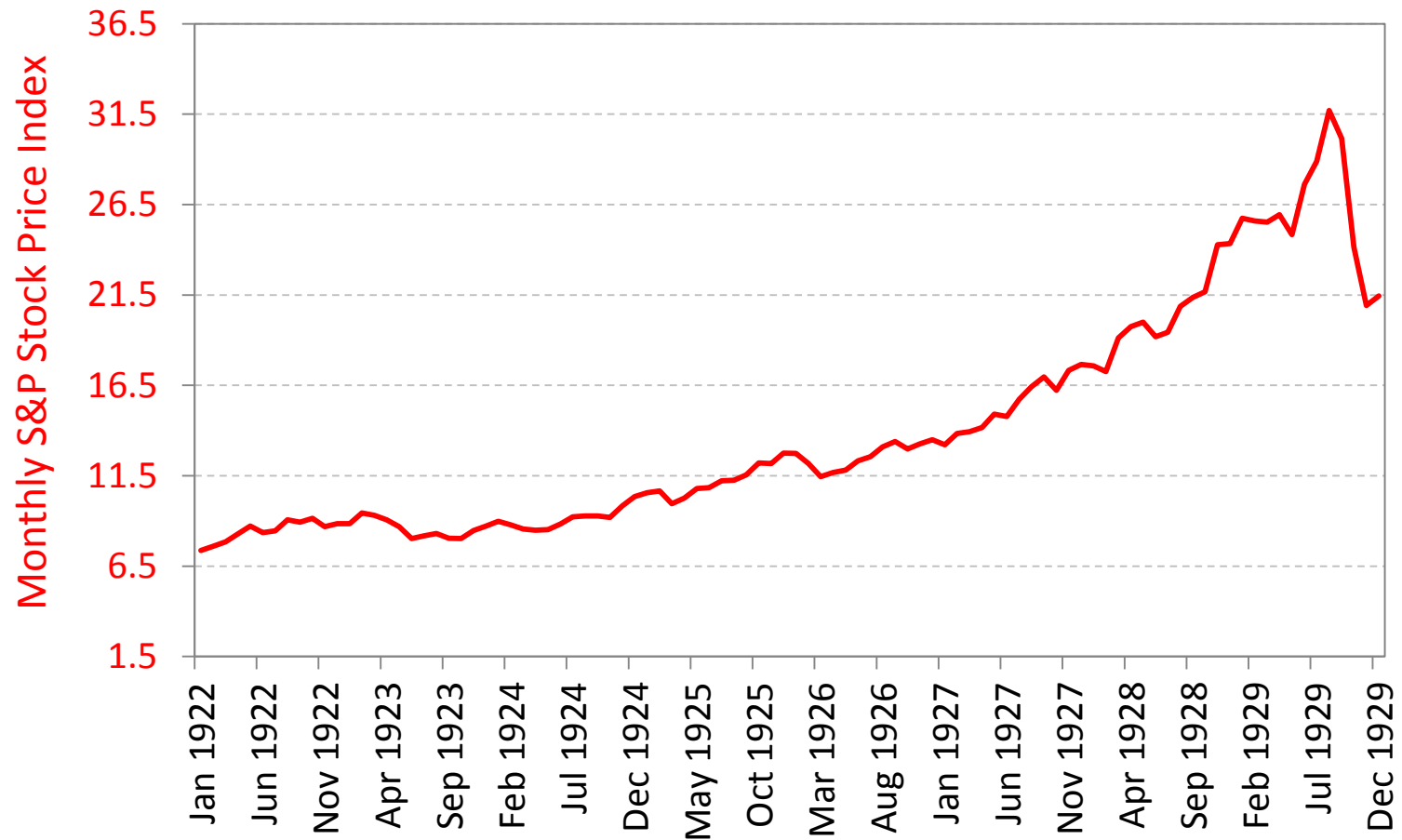
Why do we think Depression began in the U.S.?

- Circumstantial evidence – timing, severity, etc.
- Can identify shocks in the U.S. and transmission mechanism to the rest of the world.

The fundamental cause of the Great Depression was a collapse in aggregate demand caused by:

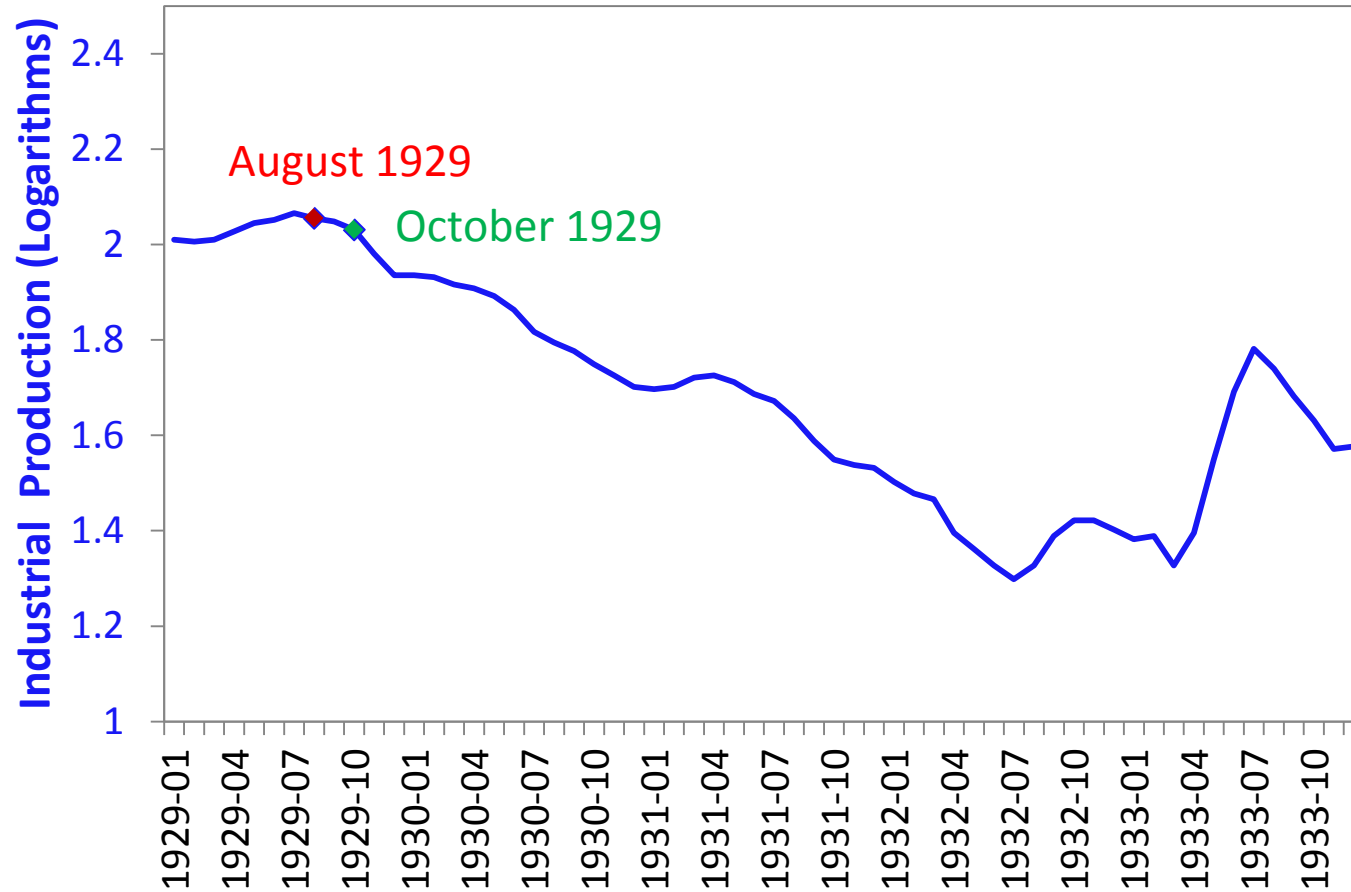
- Stock market crash.
- Banking panics and a decline in the money supply.
- Misguided macroeconomic policy.
- International factors.

Stock Prices, 1922:1-1929:12

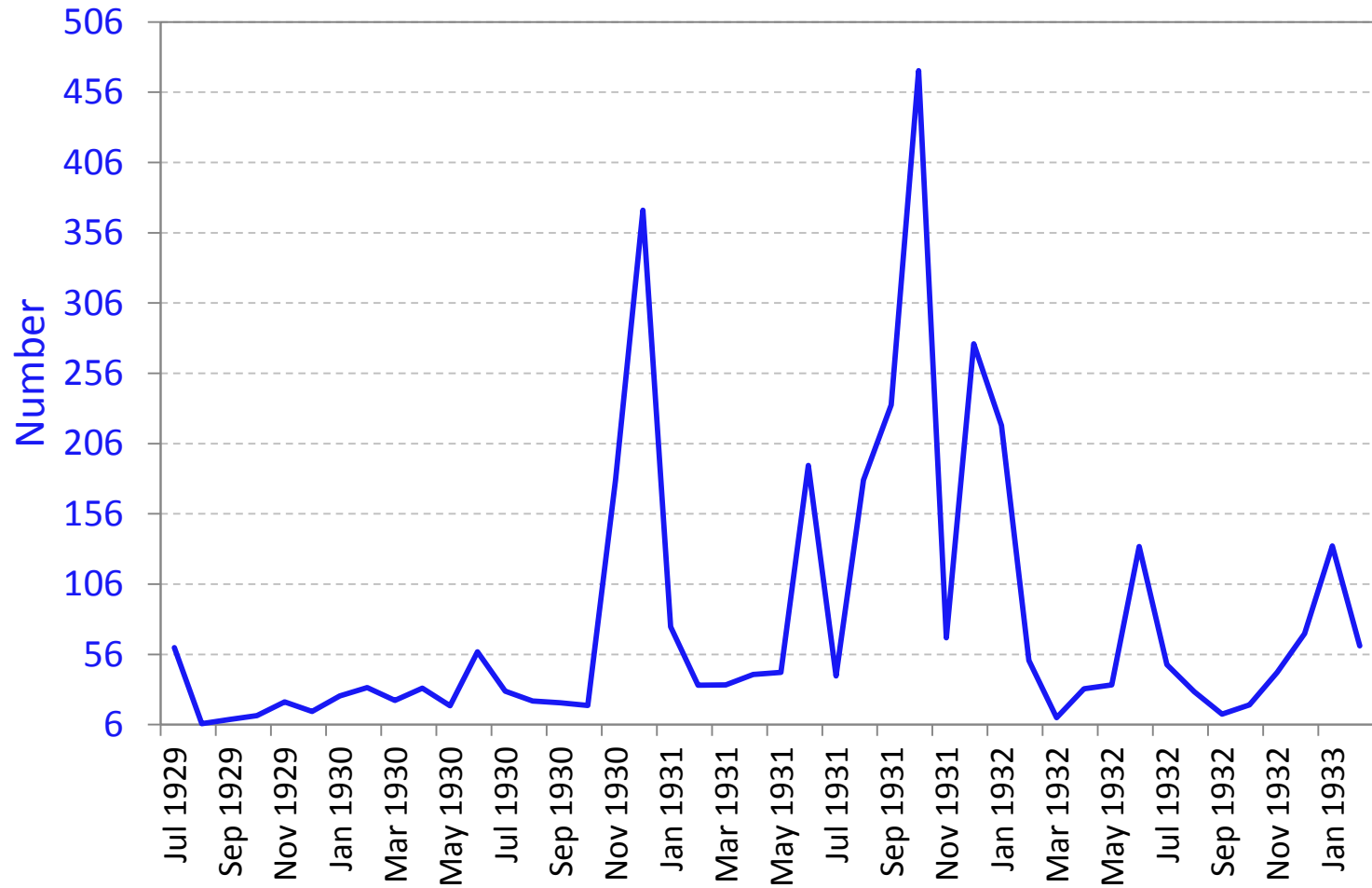


Issue: What role did the Great Crash play in the onset of the Depression?

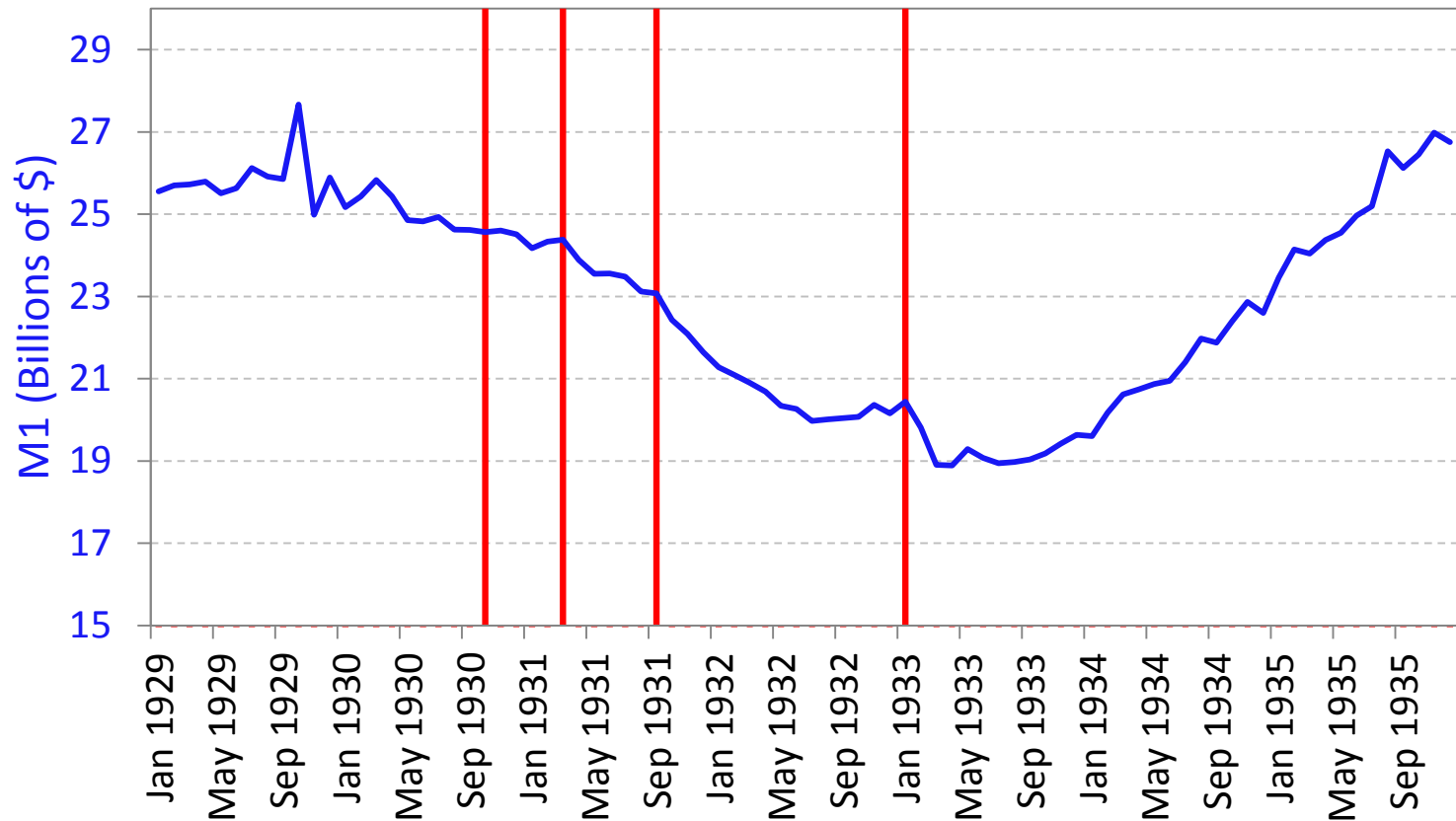
Industrial Production, 1929-1933



Bank Suspensions



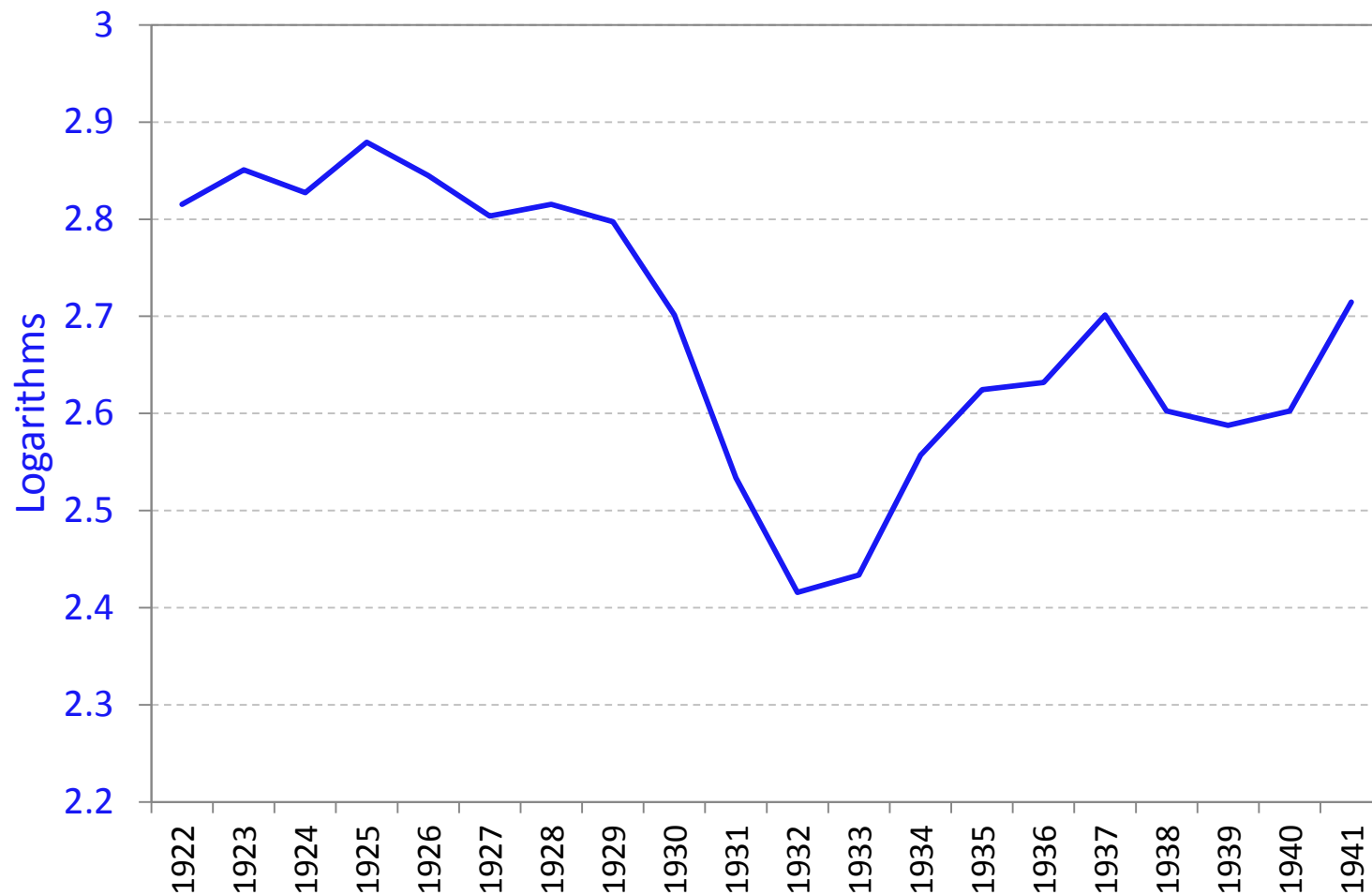
Money Supply and Banking Crises 1929-1935



Vertical lines show the dates of waves of panics identified by Friedman and Schwartz.

Issue: What was the impact of the banking panics and the collapse of the money supply?

Producer Price Index



Issue: What role did actual and expected deflation play?

Table 1
Interwar Tax Legislation

Act (Date Enacted)	Revenue Estimate	Change in Top Marginal Rate (Percentage Points)	Nature of Tax Change
Revenue Act of 1932 (6/6/32)	+\$1,121 million +1.91% of GDP	+38	Raised normal and surtax rates; surtax rates doubled at most income levels; raised corporate income tax and excise taxes

Issue: Can fiscal contractions ever be expansionary?

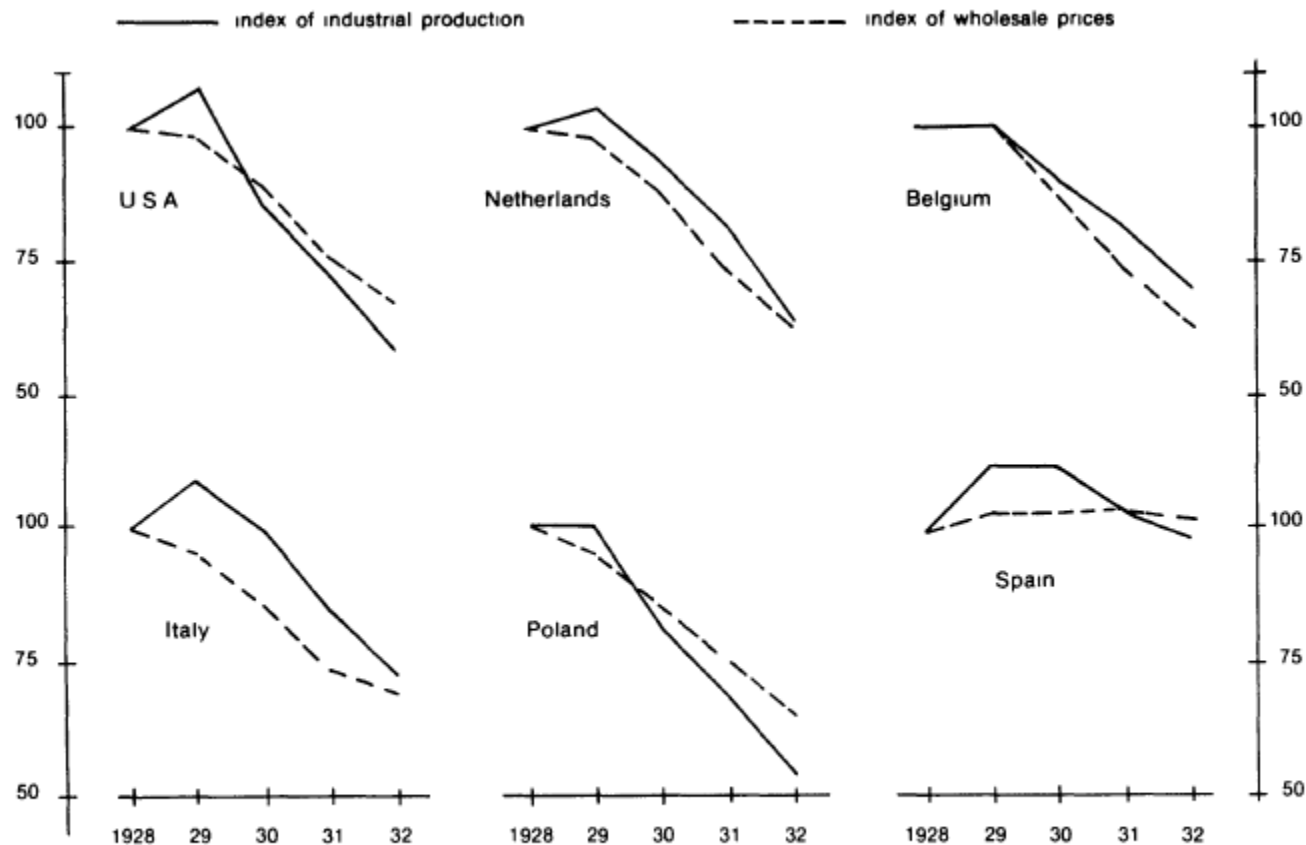
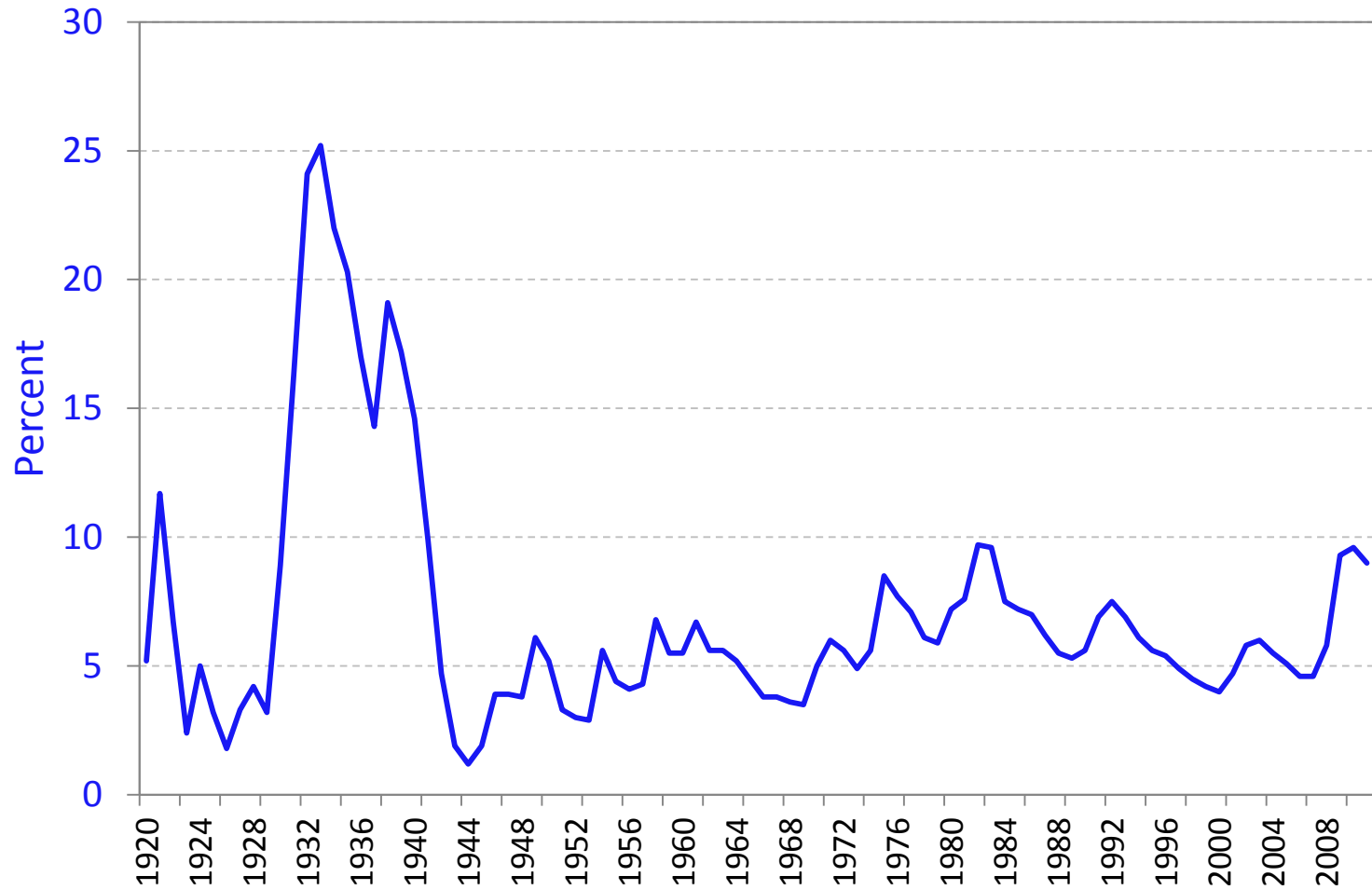


Fig. 2. The Behavior of Output and Prices During 1928–32: The Gold Countries and Spain Compared with the United States

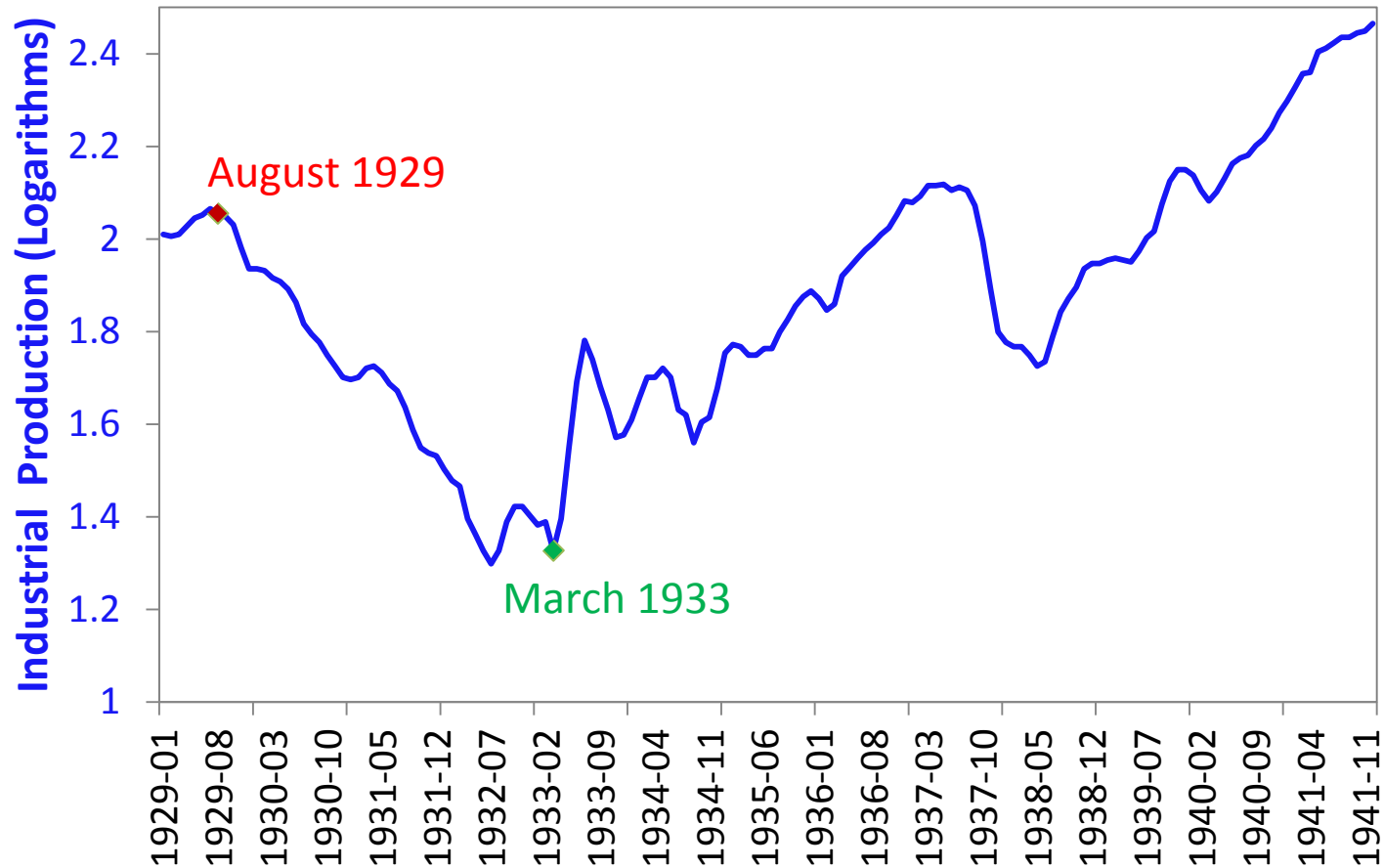
Issue: What role did the gold standard play in spreading the Depression throughout the world?

Unemployment Rate, 1920-2010

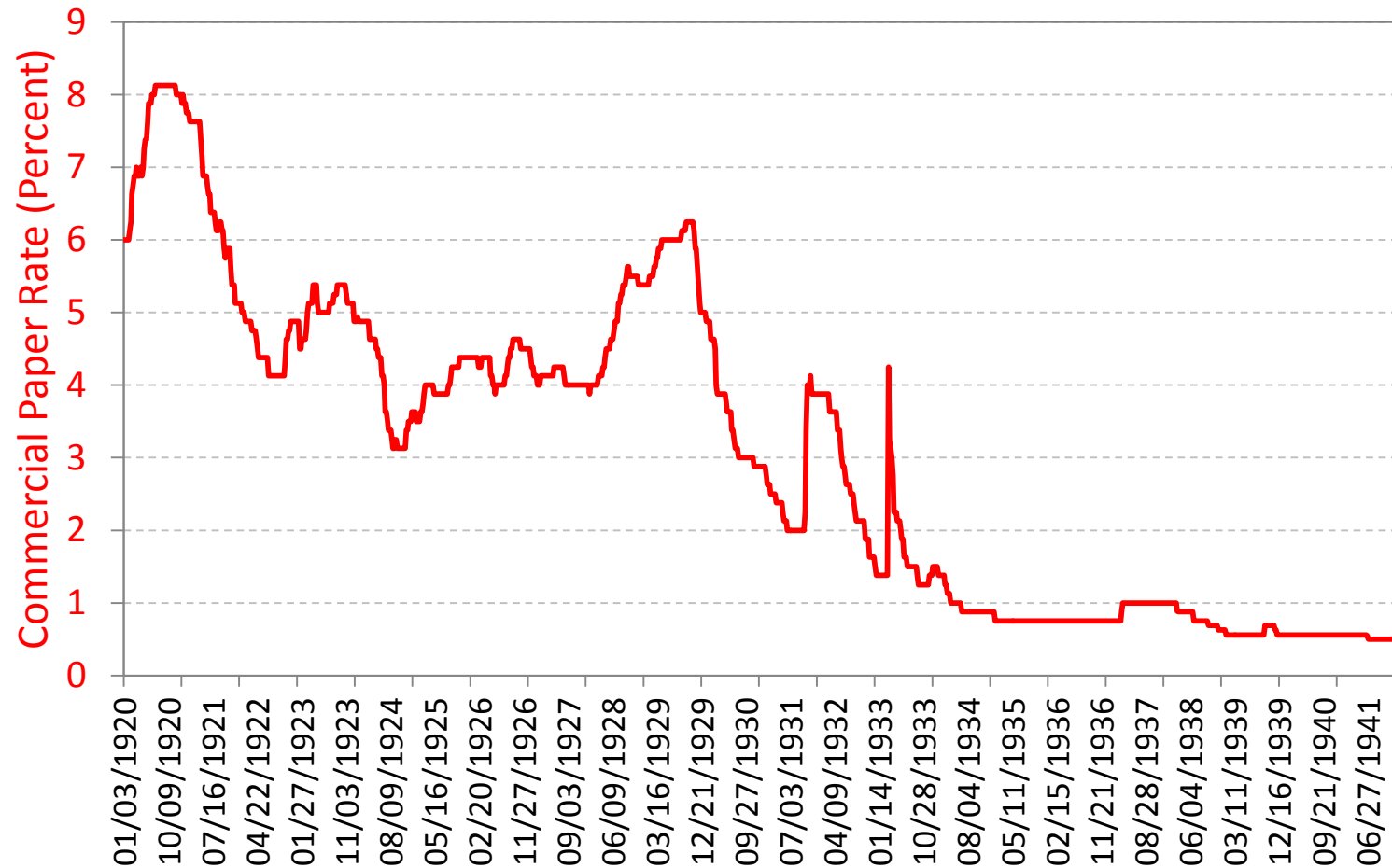


III. THE RECOVERY FROM THE GREAT DEPRESSION

Industrial Production, 1929-1941

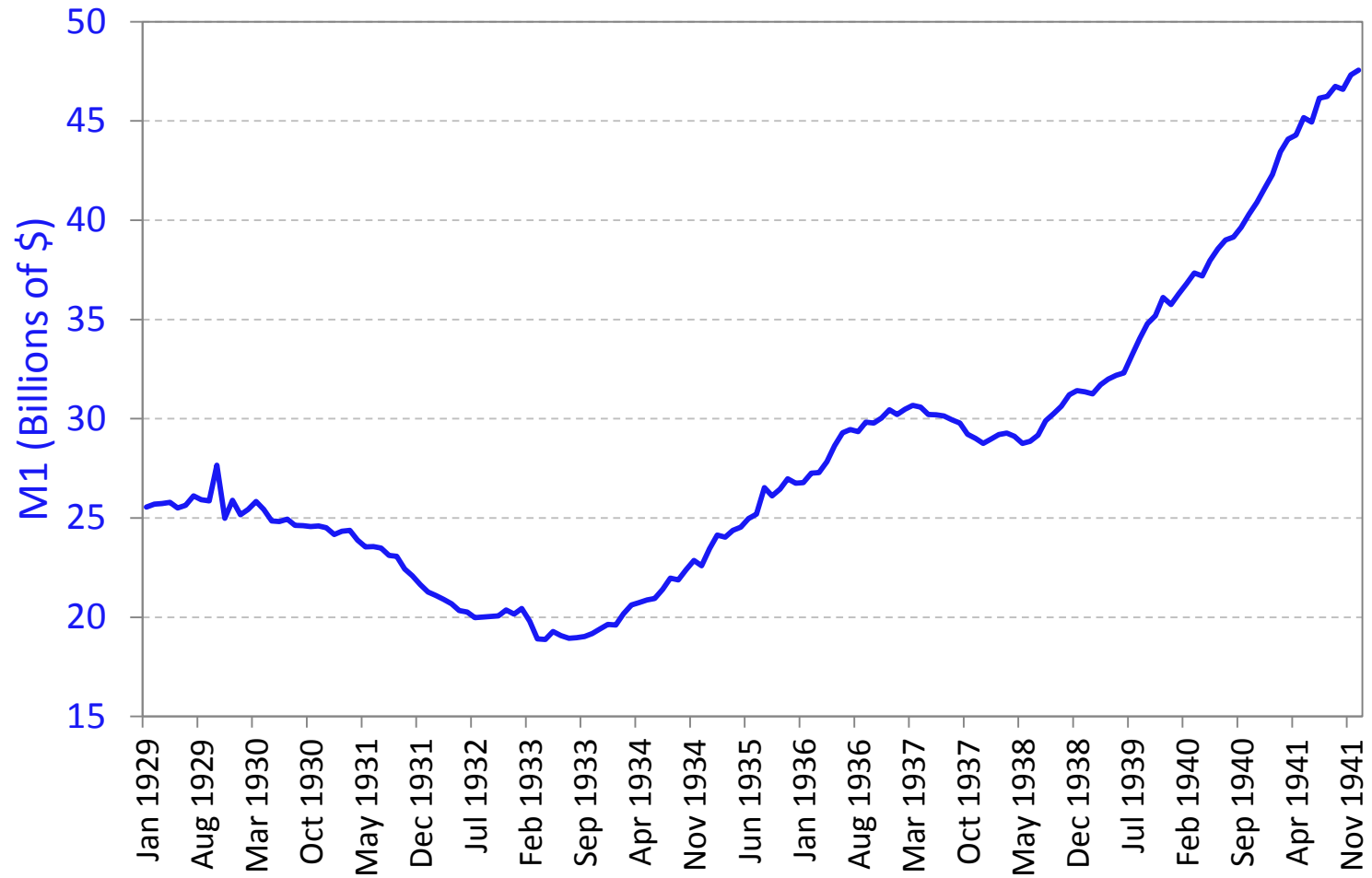


Commercial Paper Rate, 1920-1941

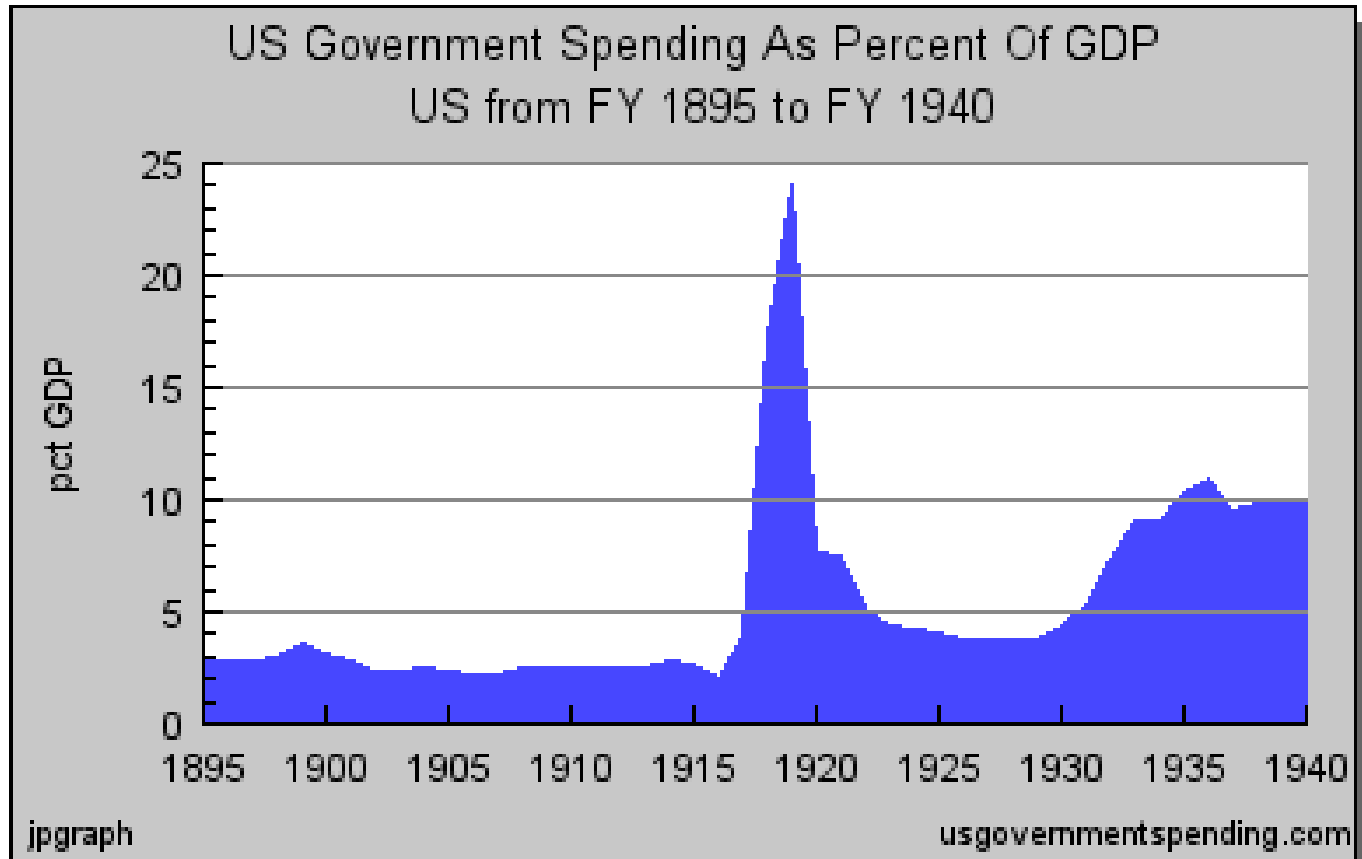


Issue: Can monetary expansion still be helpful at the zero lower bound on nominal interest rates?

Money Supply, 1929-1941

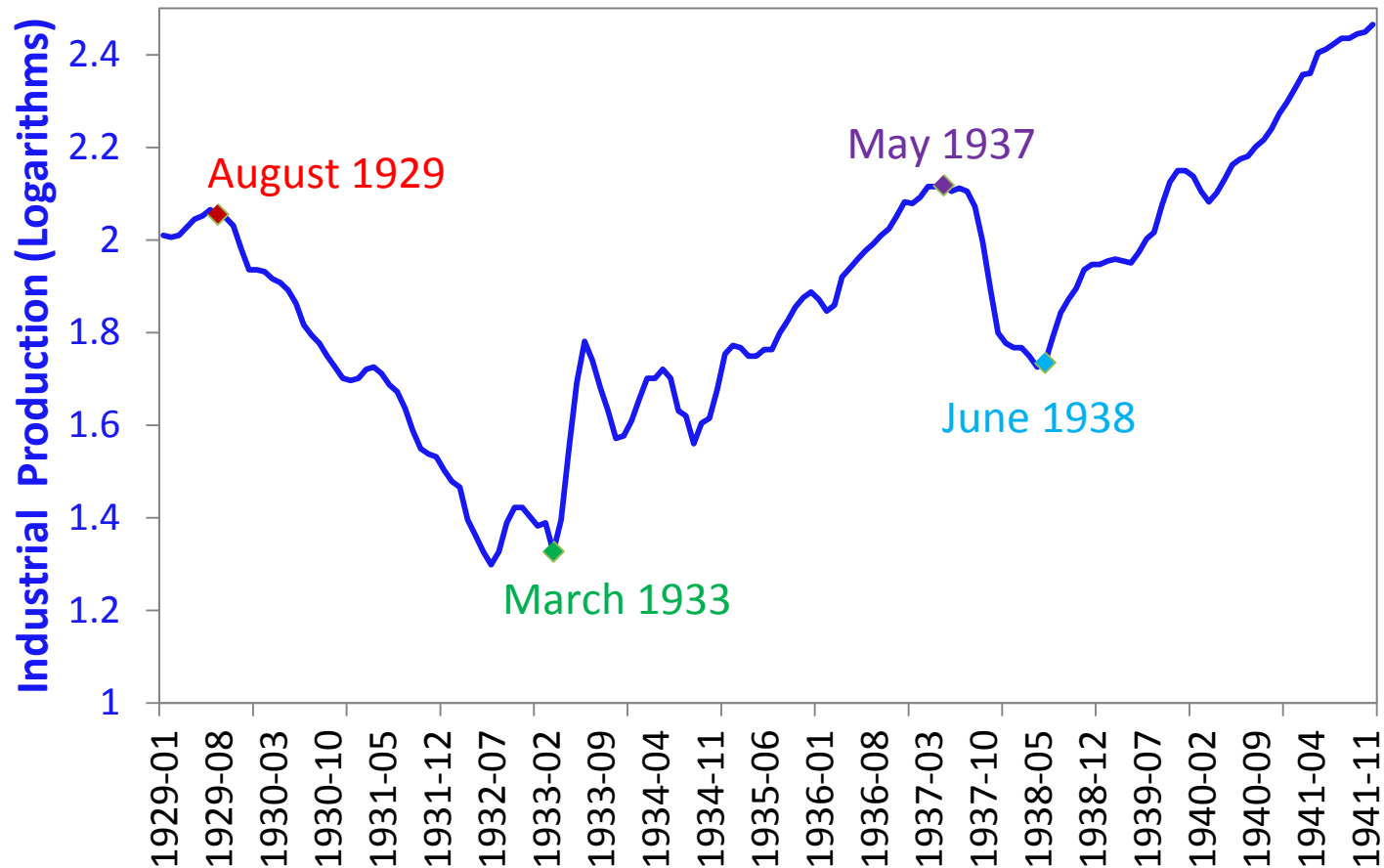


Government Spending as a Percent of GDP



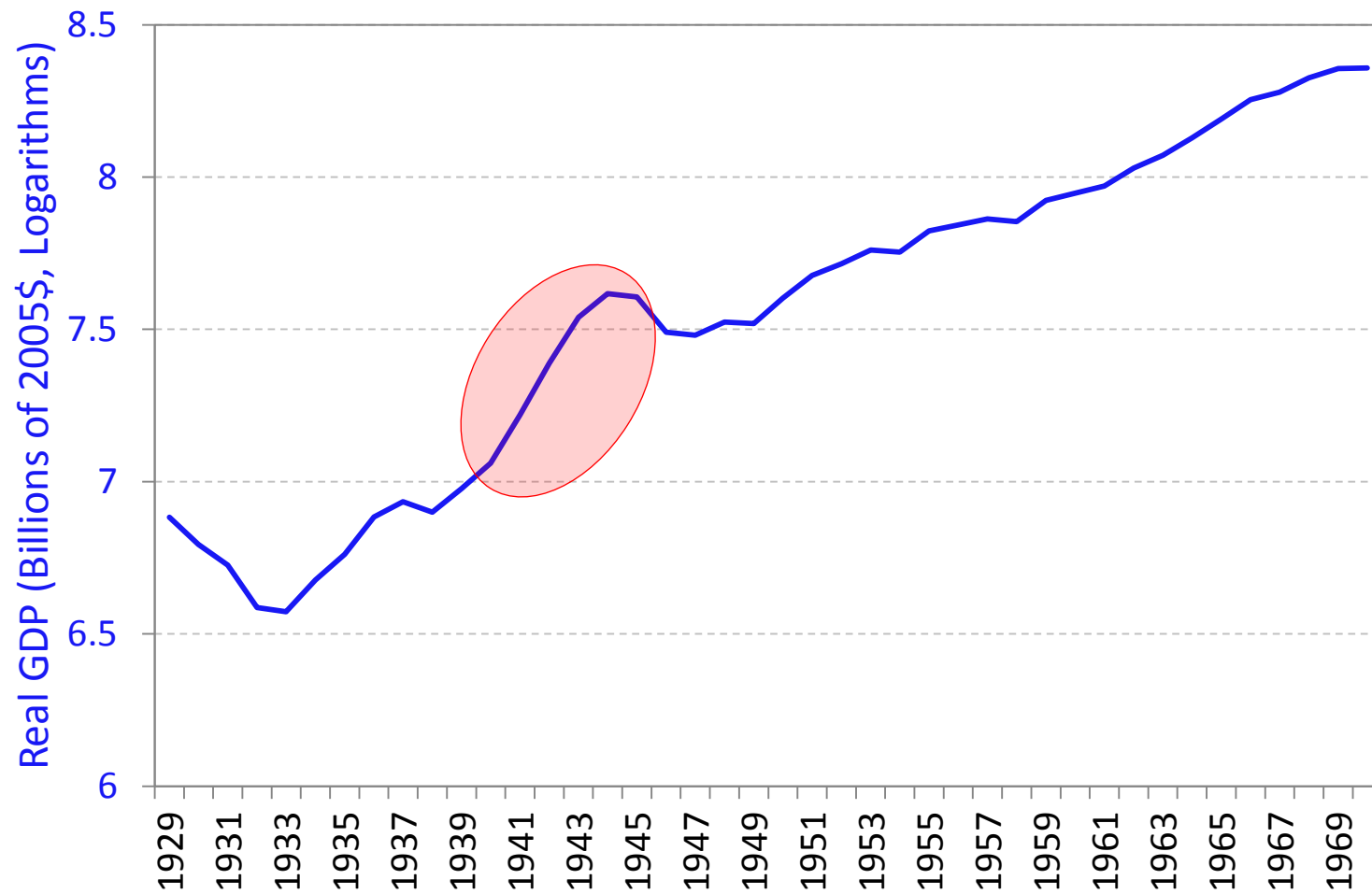
Issue: Does fiscal stimulus work?

Industrial Production, 1929-1941

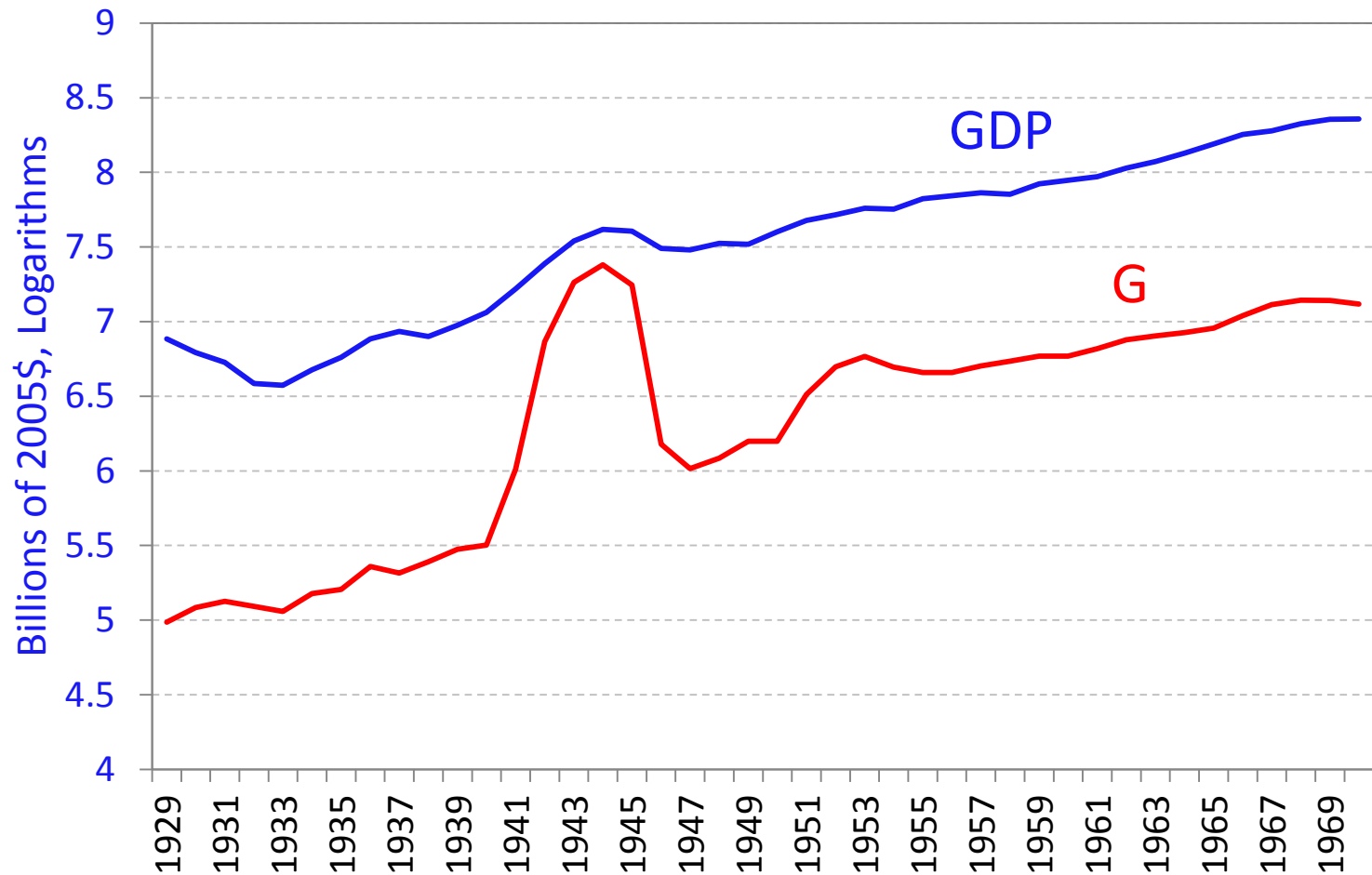


Issue: What caused the recession of 1937-38?

Real GDP

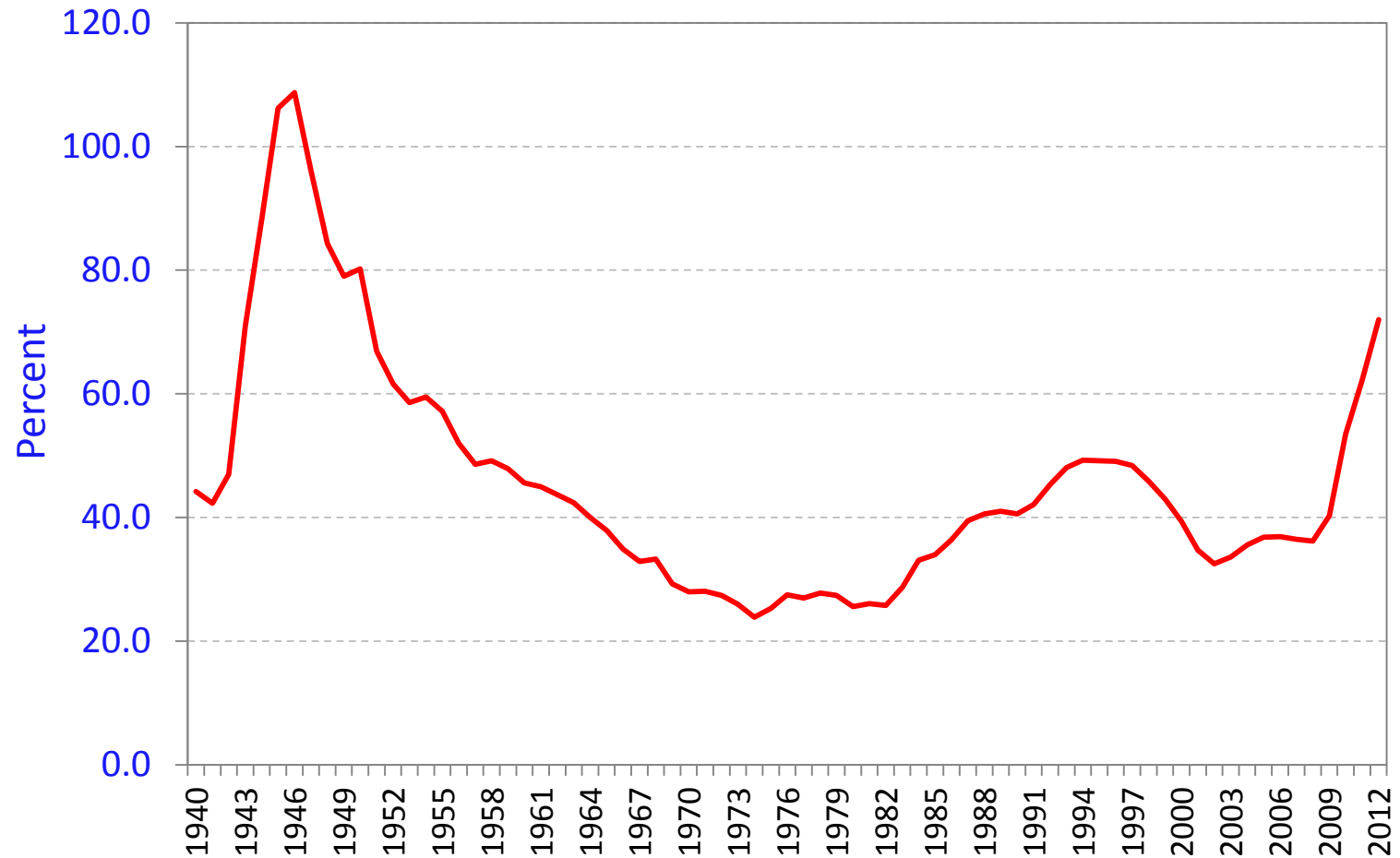


Real GDP and Government Spending



Issue: Can wars provide evidence on the impact of government spending?

U.S. Debt-to-GDP Ratio



Issue: What are the impacts of high government debt?

IV. INTRODUCTION TO POSTWAR MACROECONOMIC FLUCTUATIONS

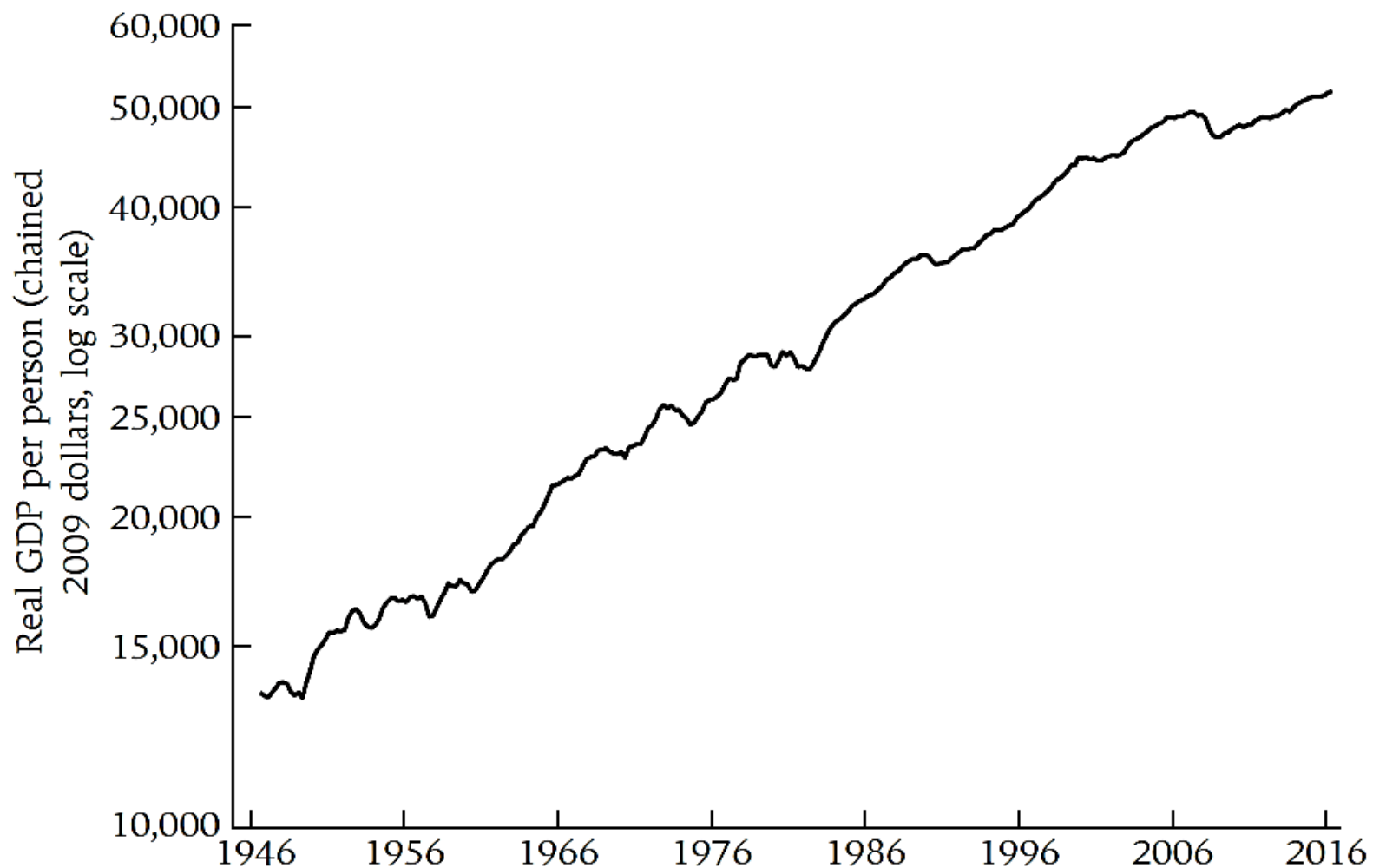
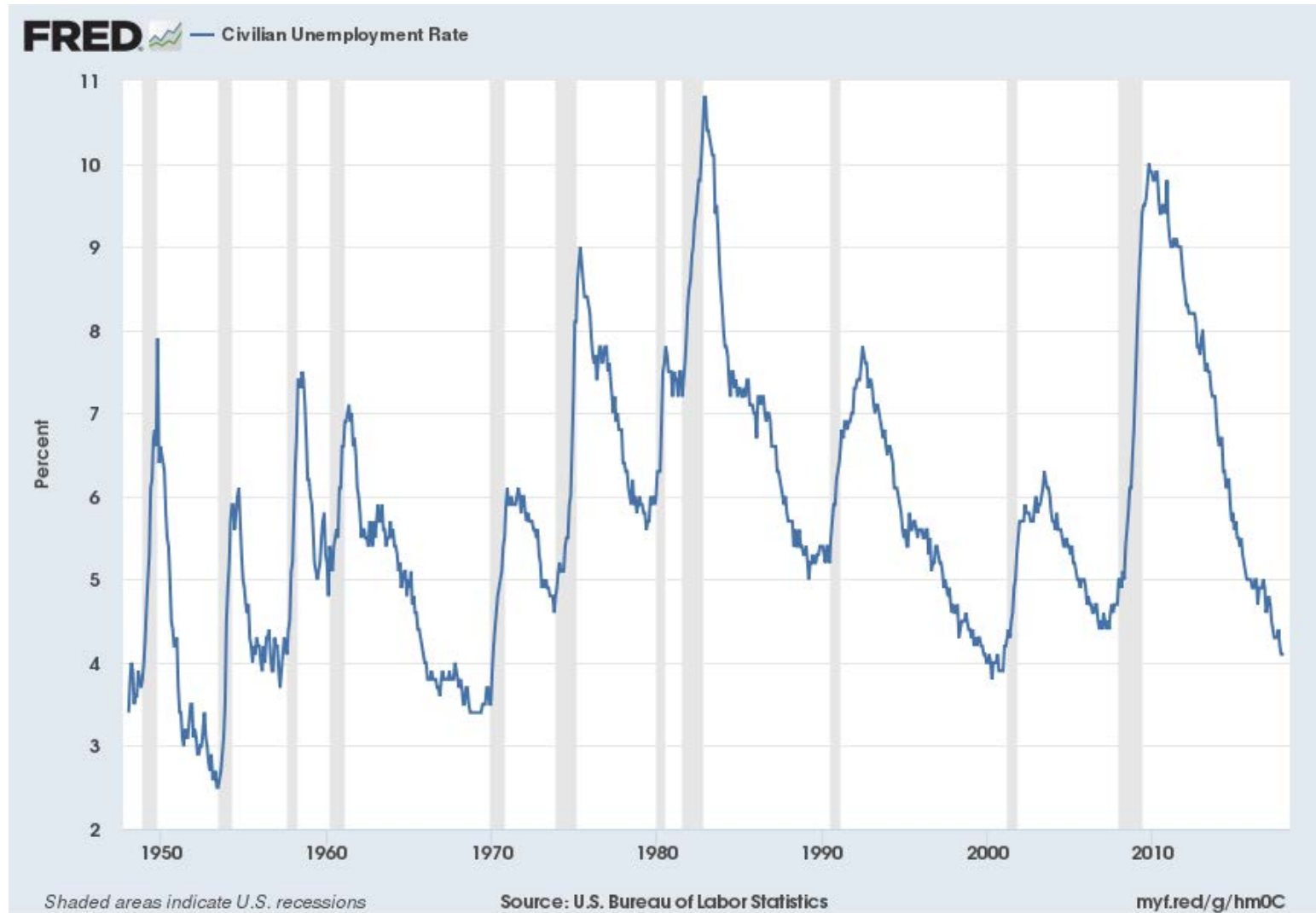


FIGURE 5.1 U.S. real GDP per person, 1947:1–2016:4

GDP does not grow smoothly.



Unemployment varies significantly, and sometimes rises sharply.

What Is a Recession?

- Recessions are identified judgmentally by the National Bureau of Economic Research.
- The NBER's definition: "A recession [is] a significant decline in economic activity [that] spreads across the economy and can last from a few months to more than a year" (emphasis added).

TABLE 5.1 Recessions in the United States since World War II

Year and quarter of peak in real GDP	Number of quarters until trough in real GDP	Change in real GDP, peak to trough
1948:4	2	−1.7%
1953:2	3	−2.5
1957:3	2	−3.6
1960:1	3	−1.3
1970:3	1	−1.0
1973:4	5	−3.1
1980:1	2	−2.2
1981:3	2	−2.8
1990:3	2	−1.3
2000:4	1	−0.3
2007:4	6	−4.2

Postwar recessions vary in frequency, duration, and size.

Output Movements Vary Greatly across Recessions

Example: Quarterly GDP Movements in the 3 Largest Postwar Recessions before the Great Recession

- 1957–58: -4.0% , -10.0% .
- 1973–75: -3.3% , $+1.1\%$, -3.8% , -1.6% , -4.7% .
- 1981–82: -4.6% , -6.5% .

Note: All figures are at an annual rate.

Okun's Law

A shortfall of GDP growth from normal of 2 percentage points is usually associated with a rise in the unemployment rate of about 1 percentage point.

TABLE 5.3 Behavior of some important macroeconomic variables in recessions

Variable	Average change in recessions	Number of recessions in which variable falls
Real GDP*	−4.2%	11/11
Employment*	−2.5%	11/11
Unemployment rate (percentage points)	+1.9	0/11
Average weekly hours, production workers, manufacturing	−2.8%	11/11
Output per hour, nonfarm business*	−1.6%	10/11

*Change in recessions is computed relative to the variable's average growth over the full postwar period, 1947:1–2016:4.

In recessions, the work week and output per hour usually fall. (And labor force participation usually falls as well.)

TABLE 5.2 Behavior of the components of output in recessions

Component of GDP	Average share in GDP	Average share in fall in GDP in recessions relative to normal growth
Consumption		
Durables	8.5%	15.0%
Nondurables	19.5	9.5
Services	35.3	11.1
Investment		
Residential	4.7	11.0
Fixed nonresidential	12.0	22.0
Inventories	0.5	45.7
Government purchases	20.7	−0.8
Net exports	−1.2	−13.5

Short-run fluctuations in output are distributed very unevenly over the components of output.