



# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS



# Overview of the Lectures

- These lectures review some of the causes of and policy responses to the recent financial crisis, focusing on the role of the Federal Reserve.
- Understanding the role of the Federal Reserve in the recent financial crisis requires an understanding of
  - the origins and mission of central banks
  - the lessons of previous financial crises and how they informed the Fed's decisions in the recent one

# Roadmap of the Lectures

- **Lecture 1** explains what central banks do, the origin of central banking in the United States, and the experience of the Fed during the Great Depression.
- **Lecture 2** reviews developments in central banking after World War II, focusing on the recent financial crisis.

# Roadmap of the Lectures

- **Lecture 3** describes the financial crisis, its implications, and the policy responses by the Federal Reserve and others.
- **Lecture 4** discusses monetary policy responses to the recession, the sluggish recovery, post-crisis changes in financial regulation, and implications of the crisis for central bank practice.

# **Lecture 1: Origins and Mission of the Federal Reserve**



# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

### What Is a Central Bank?

- A central bank is not an ordinary commercial bank, but a government agency.
- Central banks stand at the center of a nation's financial system.
- Central banks have played a key role in the development of the modern monetary system.
- Virtually all countries have a central bank.



## What Is the Mission of a Nation's Central Bank?

- Macroeconomic stability
  - All central banks strive for low and stable inflation; most also try to promote stable growth in output and employment.
- Financial stability
  - Central banks try to ensure that the nation's financial system functions properly; importantly, they try to prevent or mitigate financial *panics* or *crises*.



# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

## The Policy Tools of Central Banks

- Monetary policy
  - For macroeconomic stability: In normal times, central banks adjust the level of short-term interest rates to influence spending, production, employment, and inflation.
- Provision of liquidity
  - For financial stability: Central banks provide liquidity (short-term loans) to financial institutions or markets to help calm financial panics, serving as the “lender of last resort.”



# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

## The Policy Tools of Central Banks

- Financial regulation and supervision
  - Many central banks, including the Federal Reserve, also supervise financial institutions. To the extent that supervision helps keep firms financially healthy, the risk of loss of confidence by the public and an ensuing panic is reduced.



## Origins of Central Banking

- The earliest central banks were in Sweden (1668), England (1694), and France (1800):
  - Early central banks typically began as private institutions; over time, governments increasingly took on central banking functions.
  - An important responsibility of these central banks was issuing paper money, usually backed by gold.
- In the 19th century, central banks also began to serve as the lender of last resort during financial panics.



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## ORIGINS AND MISSION OF THE FEDERAL RESERVE

### Financial Panics

- Financial panics are sparked by a sudden loss of confidence in one or more financial institutions, leading the public to stop funding those institutions, for example, through deposits.
- Panics can cause
  - widespread bank runs
  - restrictions on depositors' access to their funds
  - bank failures
  - stock market crashes
  - economic contractions

# Financial Panics



*A financial panic is possible in any situation where longer-term, illiquid assets are financed by short-term, liquid liabilities; and in which short-term lenders or depositors may lose confidence in the institution(s) they are financing or become worried that others may lose confidence.*



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## ORIGINS AND MISSION OF THE FEDERAL RESERVE

### Lender of Last Resort

- To halt the panic, central banks must act as the lender of last resort.
- Short-term loans from the central bank replace losses of deposits or other private-sector loans, preventing the failure of solvent but illiquid firms.



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## ORIGINS AND MISSION OF THE FEDERAL RESERVE

### Lender of Last Resort

- Bagehot's (still relevant) dictum: During a panic, central banks should
  - lend freely
  - against good assets
  - at a penalty interest rate (to discourage excessive use)



Walter Bagehot

February 3, 1826 – March 24, 1877

English journalist and essayist

Author of *Lombard Street* (1873)



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## ORIGINS AND MISSION OF THE FEDERAL RESERVE

### How Does Bagehot's Dictum Help Stem Financial Panics?

- During a financial panic, financial firms need to pay off depositors and other short-term lenders. Without another source of funds, they would have to sell assets quickly and thereby worsen the panic. Many firms might go bankrupt.





# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

# How Does Bagehot's Dictum Help Stem Financial Panics?

- If financial firms can borrow freely from the central bank, using their assets as collateral, they can pay off depositors, avert “fire sales” of their assets, and restore the confidence of their depositors.





# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

### Origins of the Federal Reserve: Financial Stability Concerns

- After the Civil War and through the early 1900s, some financial stability functions were provided by private organizations, notably the New York Clearing House.



The New York Clearing House in the 19th century



# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

### Origins of the Federal Reserve: Financial Stability Concerns

- But, as evidenced by the many banking panics of this era, these organizations were unable to provide the stability needed.



The New York Clearing House in the 19th century



# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

### Origins of the Federal Reserve: Financial Stability Concerns

- The United States needed a lender of last resort with sufficient resources to stop runs on illiquid (but still solvent) banks.

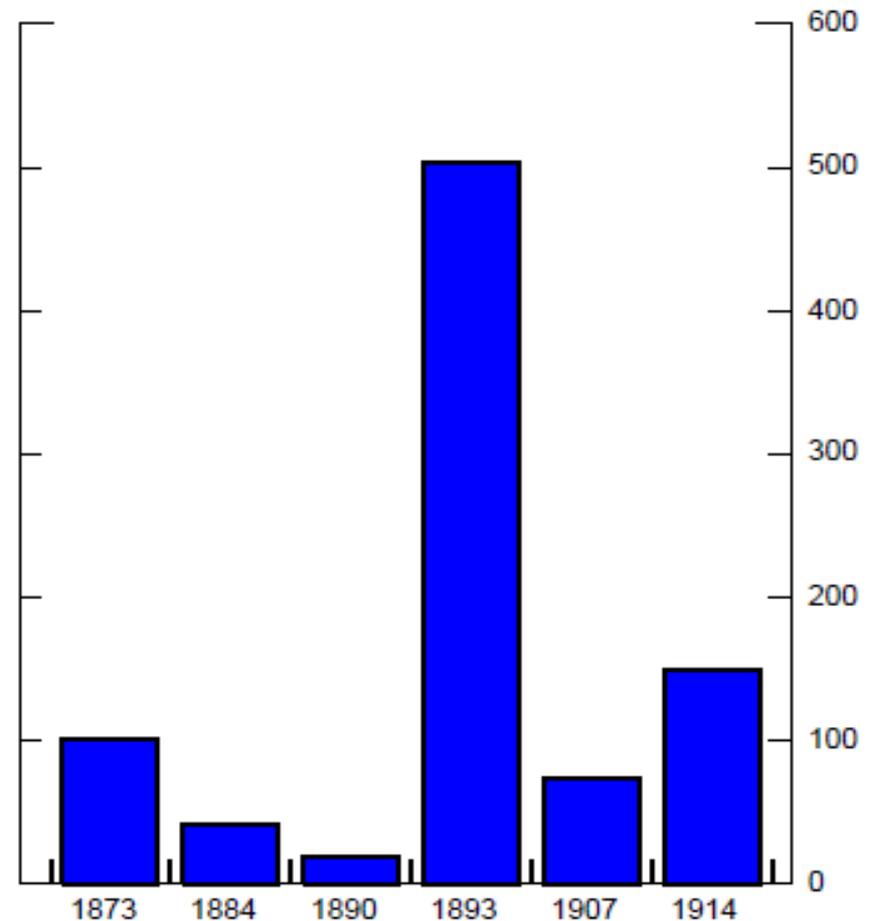


The New York Clearing House in the 19th century

# U.S. Financial Panics: 1873 to 1914

- Financial panics in 1873, 1884, 1890, 1893, and 1907 led to bank closings, losses by depositors and investors, and often to broader economic slowdowns.
- The 1907 financial panic led Congress to consider the creation of a central bank.

Bank Closings During Banking Panics:  
1873-1914

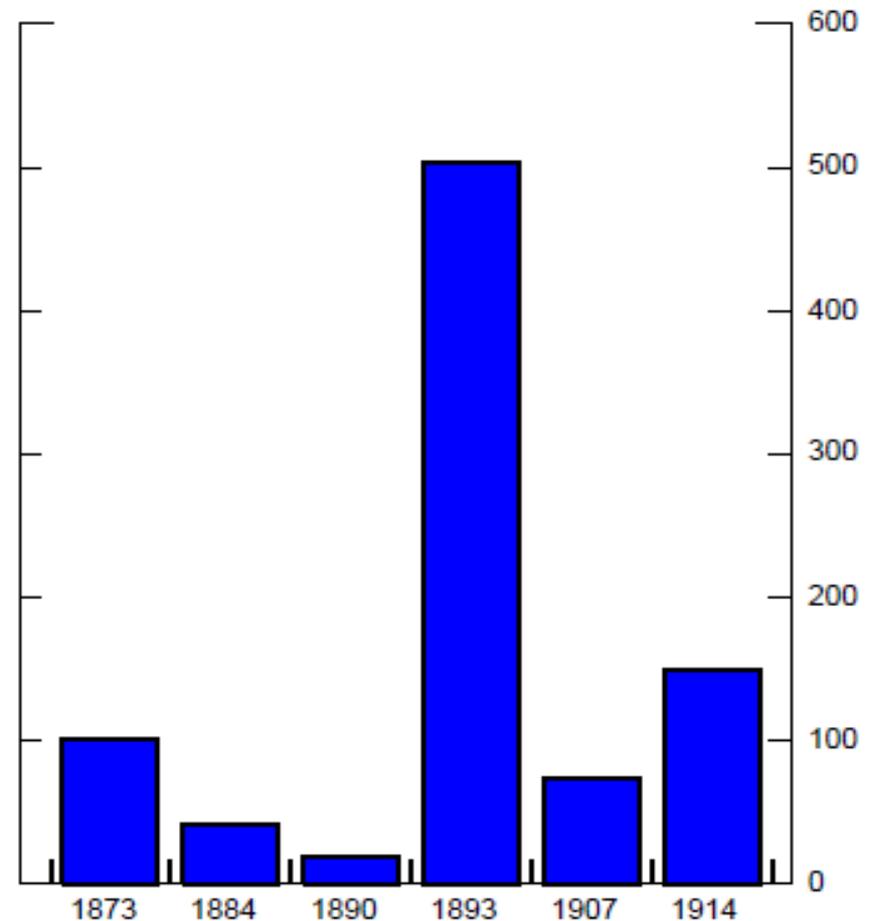


Source: For 1873-1907, Elmus Wicker. "Banking Panics of the Gilded Age," Table 3. For 1914, Federal Reserve Board, Banking and Monetary Statistics, 1914-1941.

# U.S. Financial Panics: 1873 to 1914

- Before the Federal Reserve was fully established, the country was hit by another serious financial panic in 1914.

Bank Closings During Banking Panics:  
1873-1914



Source: For 1873-1907, Elmus Wicker. "Banking Panics of the Gilded Age," Table 3. For 1914, Federal Reserve Board, Banking and Monetary Statistics, 1914-1941.



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## ORIGINS AND MISSION OF THE FEDERAL RESERVE

### Origins of the Federal Reserve: Economic Stability Concerns

- The gold standard as an alternative to a central bank
  - In a gold standard, the value of the currency is fixed in terms of a quantity of gold.
  - The gold standard sets the money supply and price level generally with limited central bank intervention.





# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

### Origins of the Federal Reserve: Economic Stability Concerns

- Problems with the gold standard
  - The strength of a gold standard is its greatest weakness too: Because the money supply is determined by the supply of gold, it cannot be adjusted in response to changing economic conditions.





# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

### Origins of the Federal Reserve: Economic Stability Concerns

- Problems with the gold standard
  - All countries on the gold standard are forced to maintain fixed exchange rates.
  - As a result, the effects of bad policies in one country can be transmitted to other countries if both are on the gold standard.





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## ORIGINS AND MISSION OF THE FEDERAL RESERVE

### Origins of the Federal Reserve: Economic Stability Concerns

- Problems with the gold standard
  - If not perfectly credible, a gold standard is subject to speculative attack and ultimate collapse as people try to exchange paper money for gold.
  - The gold standard did not prevent frequent financial panics.





# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

### Origins of the Federal Reserve: Economic Stability Concerns

- Problems with the gold standard
  - Although the gold standard promoted price stability over the very long run, over the medium run it sometimes caused periods of inflation and deflation.



# William Jennings Bryan

- In the second half of the 19th century, a global shortage of gold reduced the U.S. money supply and caused deflation (falling prices).
- Farmers were squeezed between declining prices for crops and the fixed dollar payments for their mortgages and other debts.



William Jennings Bryan  
March 19, 1860 – July 26, 1925  
Three-time Democratic  
candidate for President  
(1896, 1900, and 1908)

# William Jennings Bryan

- William Jennings Bryan ran for president on a platform of modifying the gold standard.

*“You shall not press down upon the brow of labor this crown of thorns, you shall not crucify mankind upon a cross of gold.”*

-William Jennings Bryan,  
July 9, 1896



William Jennings Bryan  
March 19, 1860 – July 26, 1925  
Three-time Democratic  
candidate for President  
(1896, 1900, and 1908)



# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

## Establishment of the Federal Reserve

- In 1913 Congress passed the Federal Reserve Act, establishing the Federal Reserve.



A painting by the artist Wilbur G. Kurtz, Sr. shows President Wilson signing the Federal Reserve Act.

*Photo courtesy of the Woodrow Wilson Presidential Library, Staunton, Virginia*



# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

## Establishment of the Federal Reserve

- The Federal Reserve Act called on the Fed to
  - serve as a lender of last resort
  - manage the gold standard to avoid sharp swings in interest rates.



A painting by the artist Wilbur G. Kurtz, Sr. shows President Wilson signing the Federal Reserve Act.

*Photo courtesy of the Woodrow Wilson Presidential Library, Staunton, Virginia*

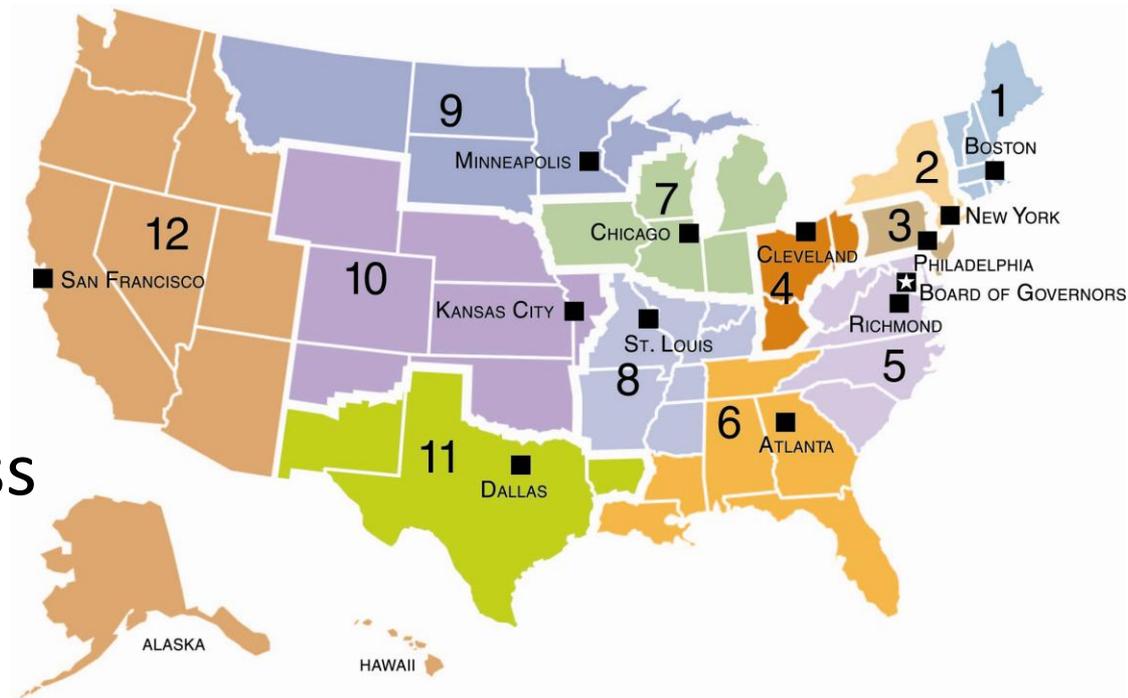


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## ORIGINS AND MISSION OF THE FEDERAL RESERVE

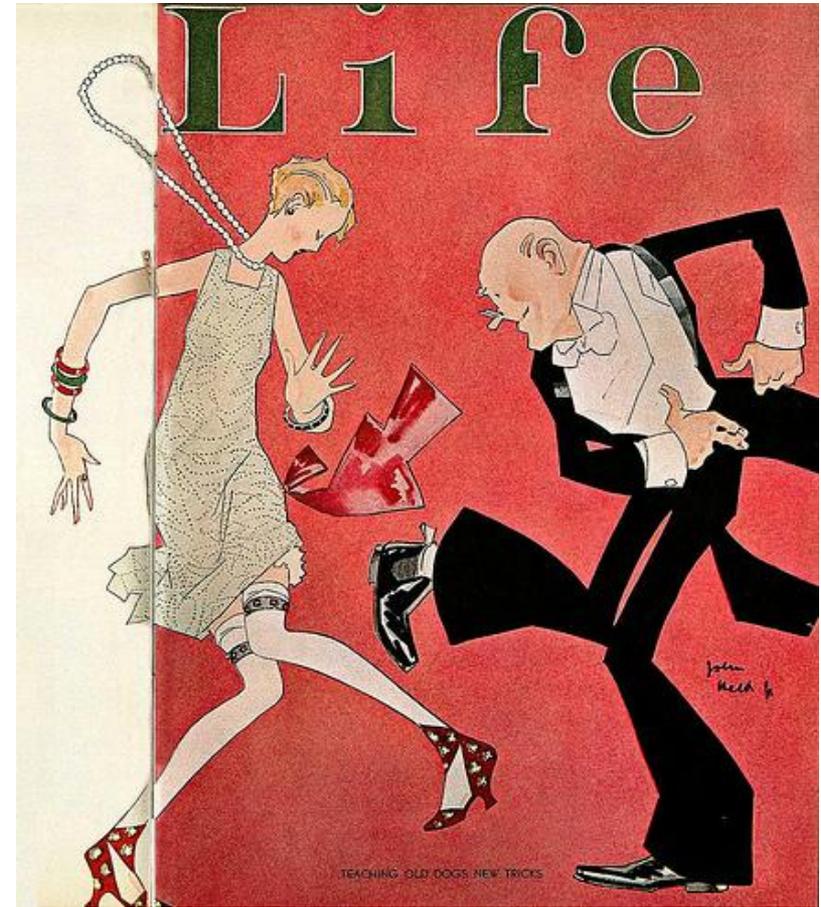
### Establishment of the Federal Reserve

- The Congress gave all regions of the country a voice in Fed policy by establishing Federal Reserve Banks across the country, with a Board of Governors in Washington, D.C.



# The Roaring Twenties

- The 1920s—the “Roaring Twenties”—was a period of prosperity in the United States. Elsewhere many countries struggled to recover from World War I.

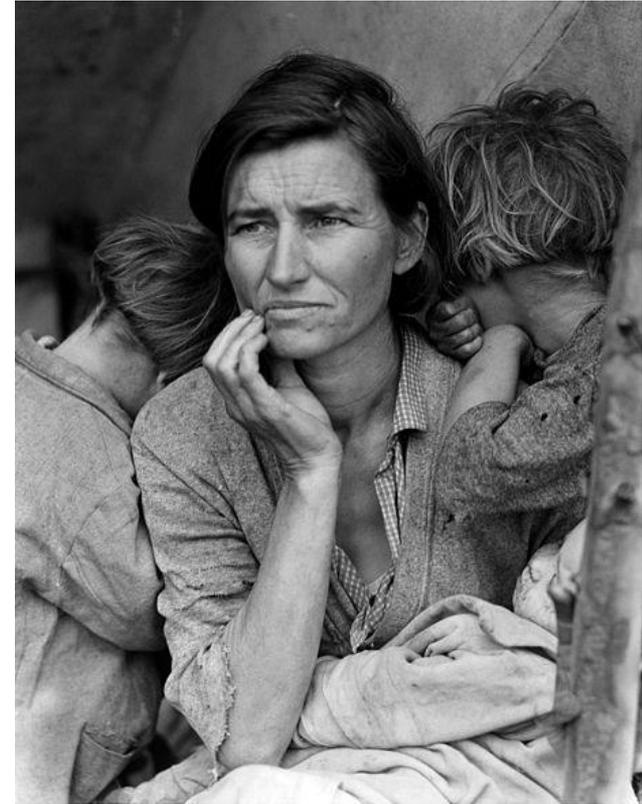


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# The Great Depression

- In 1929, however, the world was hit by a Great Depression. The U.S. stock market crashed in October 1929, and the largest bank in Austria failed in 1931. Output and prices fell in many countries, and many experienced political turmoil.
- The Depression continued until the United States entered World War II in 1941.



# Stock Market Crashes in 1929 and Continues to Fall until 1932

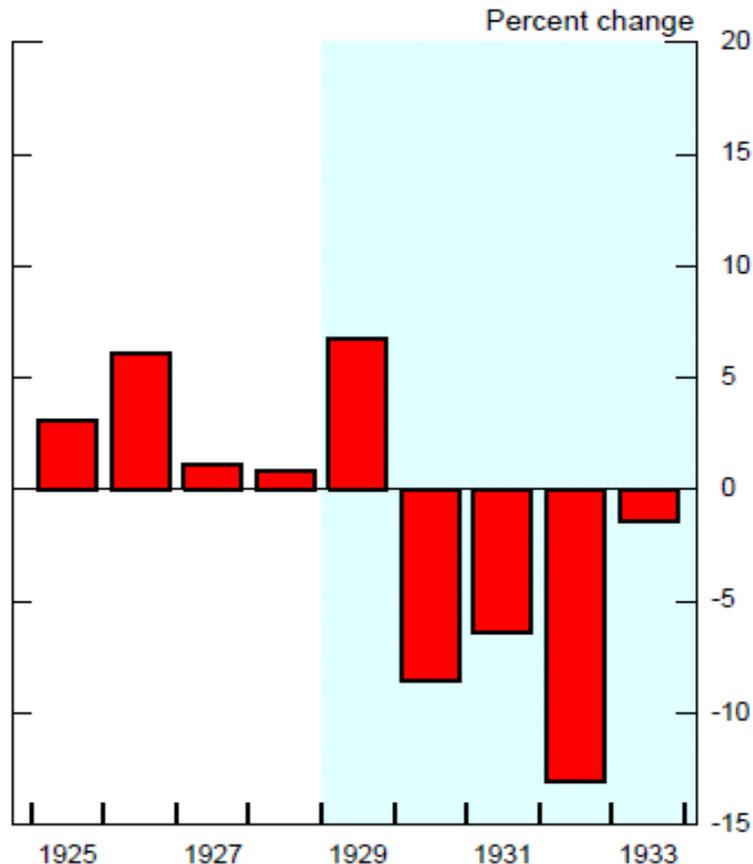
S&P Composite Equity Price Index



Source: Center for Research in Securities Prices, Index File on the S&P 500.

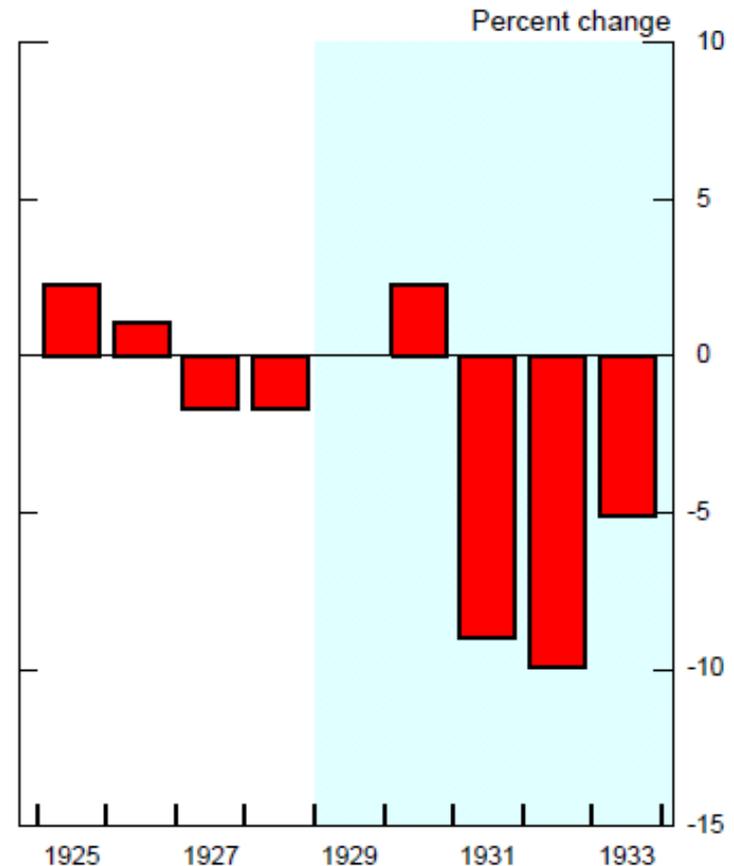
# Output Plummetts and Prices Fall (Deflation)

Real GDP



Note: Shading represents years of the Great Depression.  
Source: Historical Statistics of the United States: Millennial Edition, table Ca9.

Consumer Price Index

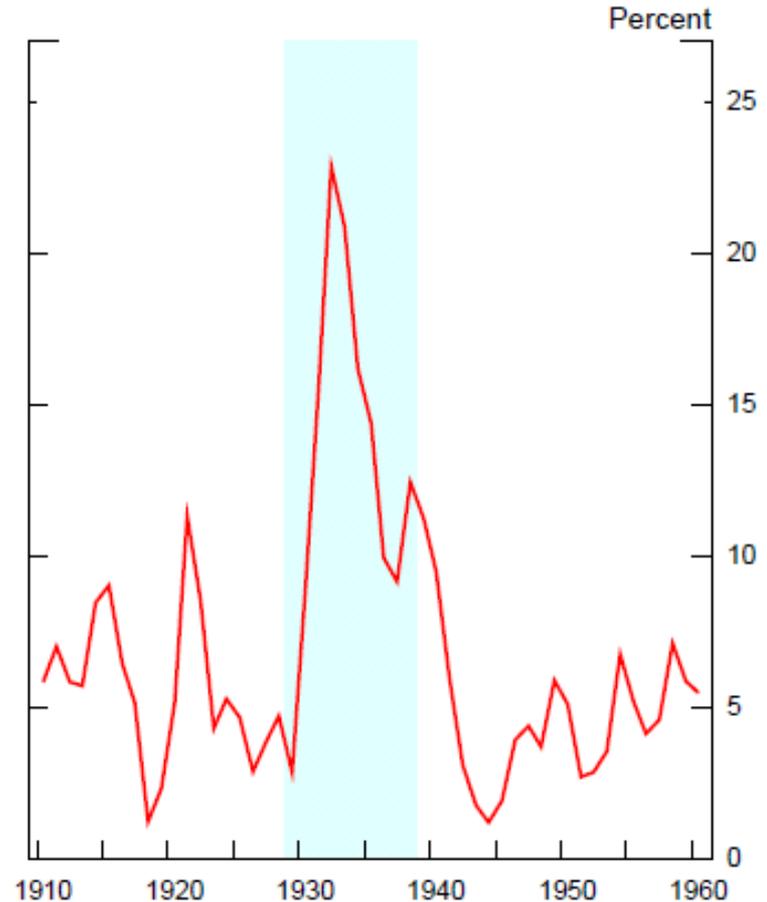


Source: Historical Statistics of the United States, Millennial Edition On Line, table Cc1.

# Unemployment in the Great Depression



Unemployment Rate



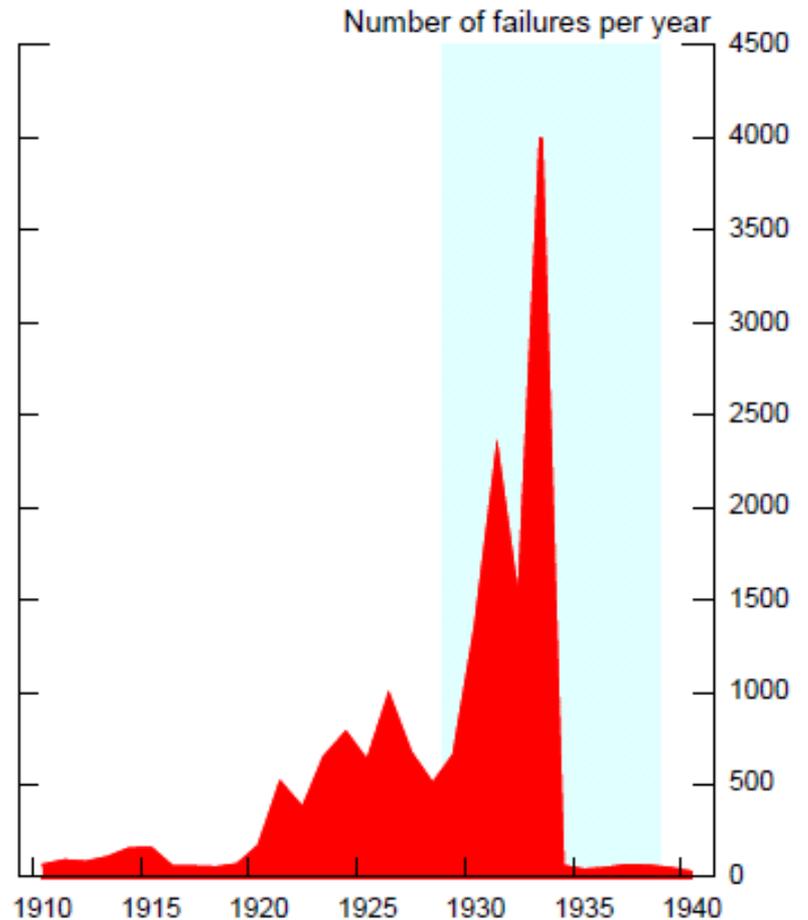
Note: Shading represents years of the Great Depression.

Source: Historical Statistics of the United States: Millennial Edition, table Ba475.

# Bank Failures in the Great Depression



Bank Failures



Source: Federal Reserve Board, Banking and Monetary Statistics, 1914-1941, table 66.



## What Caused the Great Depression?

- There were many causes, including
  - economic and financial repercussions of World War I, including the effects of reparations payments
  - the structure of the international gold standard
  - a bubble in stock prices
  - financial panic and the collapse of major financial institutions



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## ORIGINS AND MISSION OF THE FEDERAL RESERVE

## What Caused the Great Depression?

- “liquidationist” theory, which viewed the Depression as a necessary corrective to the excesses of the 1920s

*“Liquidate labor, liquidate stocks, liquidate the farmers, liquidate real estate.”*

- Andrew Mellon, Secretary of Treasury, 1931  
(as reported by Herbert Hoover in 1937)



## Monetary Policy in the Great Depression

- Policy errors included
  - tightening of monetary policy in 1928 and 1929 to stem stock market speculation
  - policy tightening in 1931 to halt a speculative attack on the dollar
  - policy inaction in 1932, despite high unemployment and falling prices



## Monetary Policy in the Great Depression

- The Fed's tight monetary policy led to sharply falling prices and steep declines in output and employment.
- The effects of policy errors here and abroad were transmitted globally through the gold standard.
- The Fed kept money tight in part because it wanted to preserve the gold standard. When FDR abandoned the gold standard in 1933, monetary policy became less tight and deflation stopped.



# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

# Lender-of-Last-Resort Policy in the Great Depression

- The Fed responded inadequately to bank runs and the contraction of bank lending, providing only minimal credit to banks.



# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

# Lender-of-Last-Resort Policy in the Great Depression

- Bank failures swept the country. More than 9,700 of the nation's 25,000 banks (at the end of 1928) suspended operations between 1929 and 1933. Failures continued until deposit insurance was established in 1934.



# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

# Lender-of-Last-Resort Policy in the Great Depression

- The Fed appeared to agree with the liquidationist thesis, believing that banking and credit had expanded too much in the 1920s and needed to be reduced.



# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

## Roosevelt's Economic Policies

- FDR tried many policies to end the Depression. Two particularly successful policies were
  - Deposit insurance for banks ended runs.
  - Abandonment of the gold standard allowed the money supply to increase and ended deflation.



# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

## Policy Lessons from the Great Depression

- The Great Depression was global, and had many causes. However, policy errors in the United States and abroad played an important role.



# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

## Policy Lessons from the Great Depression

- The Federal Reserve failed in both parts of its mission:
  - It did not use monetary policy to prevent deflation and the collapse in output and employment.
  - It did not adequately perform its function as lender of last resort, allowing many bank failures and a resulting contraction in credit.



# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

## Policy Lessons from the Great Depression

- We will want to keep these lessons in mind as we consider the Fed's response to the crisis of 2008-2009.



# THE FEDERAL RESERVE AND THE FINANCIAL CRISIS

## ORIGINS AND MISSION OF THE FEDERAL RESERVE

- The next lecture reviews developments in central banking after World War II, including the sources of the recent financial crisis.



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