

# A History of Money and Banking

## Lecture 5

Petar Stankov

`petar.stankov@gmail.com`

30 Sep. 2013

# What is Money?

## Definition: Money

# What is Money?

## Definition: Money

**Money** is anything that is generally accepted in payment for goods or services or in the repayment of debts.

Functions of money:

# What is Money?

## Definition: Money

**Money** is anything that is generally accepted in payment for goods or services or in the repayment of debts.

Functions of money:

- **A medium of exchange:** it is used to pay for goods and services
  - imagine a barter economy
  - facilitating transactions (reducing transaction costs)
  - encouraging specialization

# What is Money?

## Definition: Money

**Money** is anything that is generally accepted in payment for goods or services or in the repayment of debts.

Functions of money:

- **A medium of exchange:** it is used to pay for goods and services
  - imagine a barter economy
  - facilitating transactions (reducing transaction costs)
  - encouraging specialization
- **A unit of account:** to measure the value of the goods and services
  - imagine a barter economy, 10 goods only
  - price normalization

# What is Money?

## Definition: Money

**Money** is anything that is generally accepted in payment for goods or services or in the repayment of debts.

Functions of money:

- **A medium of exchange:** it is used to pay for goods and services
  - imagine a barter economy
  - facilitating transactions (reducing transaction costs)
  - encouraging specialization
- **A unit of account:** to measure the value of the goods and services
  - imagine a barter economy, 10 goods only
  - price normalization
- **A store of value:** it has most of its purchasing power tomorrow too
  - any asset is a store of value. Why people choose money?

# What is Money?

## Definition: Money

**Money** is anything that is generally accepted in payment for goods or services or in the repayment of debts.

Functions of money:

- **A medium of exchange:** it is used to pay for goods and services
  - imagine a barter economy
  - facilitating transactions (reducing transaction costs)
  - encouraging specialization
- **A unit of account:** to measure the value of the goods and services
  - imagine a barter economy, 10 goods only
  - price normalization
- **A store of value:** it has most of its purchasing power tomorrow too
  - any asset is a store of value. Why people choose money?
  - liquidity

# Factors Influencing the Evolution of Money

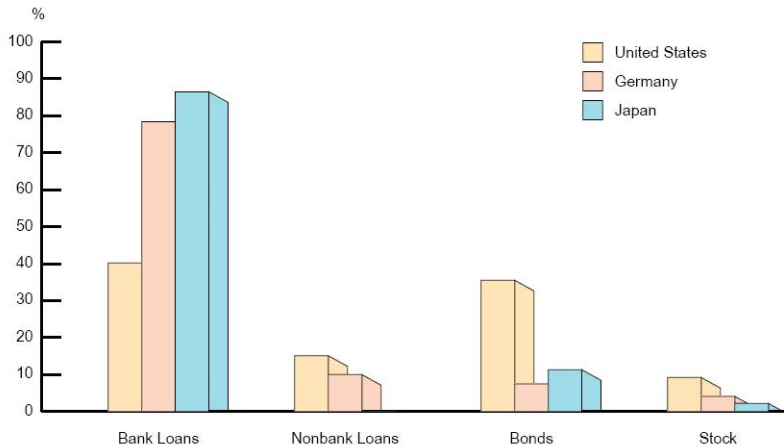
How early forms of money emerged:

- barter → double coincidence of wants → expensive to transact
- occupational and regional division of labour → a need to transact  
→ **commodity money** as an institution facilitating transactions
- non-coincidence of wants → store of value  
→ coins in circulation: Greek, Roman, Byzantine, Carolingian empires
- trade → **bills of exchange**: a promise from the debtor to pay the creditor at a specified point in the future  
→ modern banking: 1694 – Bank of England



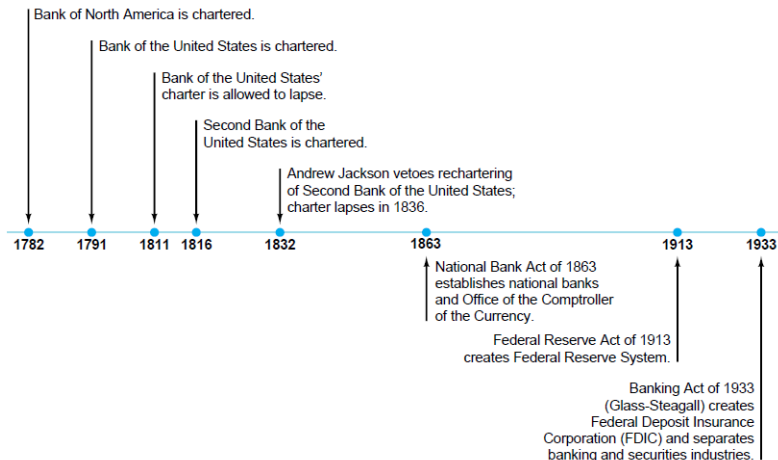
# What are we trying to explain?

## Banking in the developed world



# A Brief History of Banking in US

## A timeline



# A Brief History of Banking in US

- 1 1782: First bank is created; huge success; number of banks increase
- 2 Early 19th century: Banks issue their own bank notes; frauds increase
- 3 1863: National Bank Act: Reallocation of funds to banks regulated by the Federal Government rather than the State Government
- 4 1913: Federal Reserve Act creates the FED as a system
- 5 1933: Federal Deposit Insurance Corporation is created
- 6 1933: Investment in securities and banking are separated (Glass-Steagal Act)
- 7 1994: Consolidation of banks across states is allowed
- 8 1998: The first bank to have branches on both coasts
- 9 1999: Repeal of Glass-Steagal
- 10 2010: Dodd-Frank

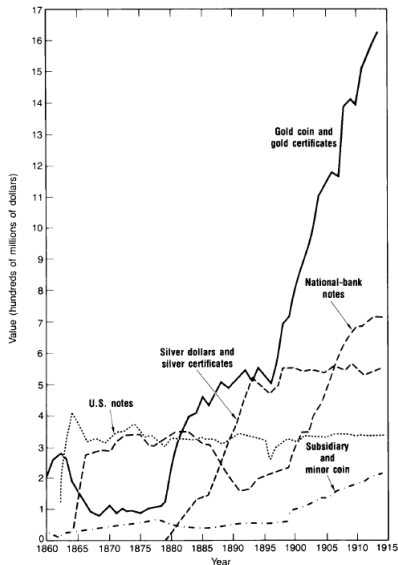
# Does Money Create Inflation?

## Evolution of Money in the US

**FIGURE 19.1**

Forms and Values of  
Currency in the United  
States, 1860–1915

From the late 1870s to the early 1890s, substantial additions were made to the nation's monetary stocks of gold and silver, but it was not enough to prevent deflation. After 1895, however, the increase in the stock of gold became even more rapid, and deflation became inflation.



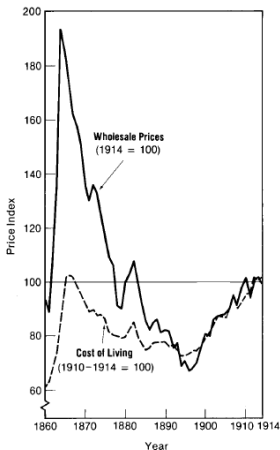
# Does Money Create Inflation?

## Evolution of Prices in the US

**FIGURE 19.2**

Prices, 1860–1914

Prices generally fell from the end of the Civil War until the 1890s and then rose until WWI.



Source: Historical Statistics 1960, Series E1, 101, 157.

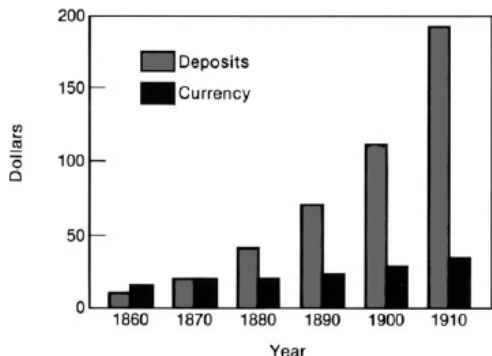
Think: Use the quantitative theory of money to explain deflationary episodes.

# One of the reasons for economic growth

## Savings

**FIGURE 19.3**

Per Capita Deposits and  
Currency in Circulation



Source: *Data from Historical Statistics of the United States*  
1947, 25, 262, 263, and 274.

Think: Why more savings lead to growth despite the lack of more money?

# What do banks actually do?

## The balance sheet of the US banking system

**Table 1 Balance Sheet of All Commercial Banks (items as a percentage of the total, January 2003)**

Assets (Uses of Funds)*		Liabilities (Sources of Funds)	
Reserves and cash items	5	Checkable deposits	9
Securities		Nontransaction deposits	
U.S. government and agency	15	Small-denomination time deposits	
State and local government and		(< \$100,000) + savings deposits	42
other securities	10	Large-denomination time deposits	14
Loans		Borrowings	28
Commercial and industrial	14	Bank capital	7
Real estate	29		
Consumer	9		
Interbank	4		
Other	8		
Other assets (for example,			
physical capital)	6		
Total	100	Total	100

Think: Why more savings lead to growth despite the lack of more money?

# A side note

## The dual banking system in the US

**TABLE 19.1 COMMERCIAL BANKS IN THE UNITED STATES, 1860–1914**

YEAR	NUMBER OF STATE BANKS <sup>a</sup>	ASSETS OF STATE BANKS <sup>a</sup> (millions of dollars)	NUMBER OF NATIONAL BANKS	ASSETS OF NATIONAL BANKS (millions of dollars)
1860	1,562	\$ 1,000	0	\$ 0
1863	1,466	1,192	66	17
1864	1,089	721	467	252
1865	349	231	1,294	1,127
1866	297	197	1,634	1,476
1867	272	180	1,636	1,494
1868	247	164	1,640	1,572
1869	259	171	1,619	1,564
1870	325	215	1,612	1,566
1880	1,279	1,364	2,076	2,036
1890	4,717	3,296	3,484	3,062
1900	9,322	6,444	3,731	4,944
1910	18,013	13,030	7,138	9,892
1914	20,346	15,872	7,518	11,477

<sup>a</sup>Includes mutual savings banks.

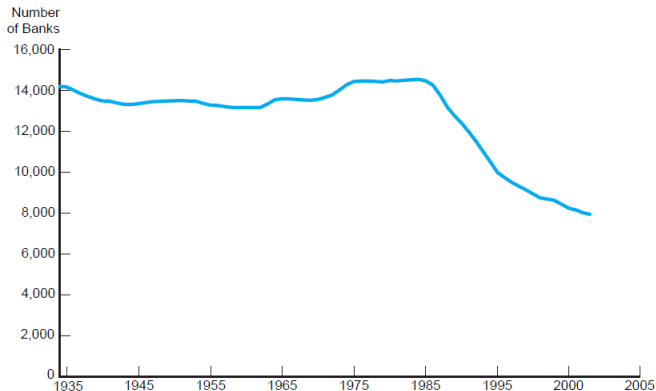
Source: Historical Statistics 1960, Series X20, X21, X42, X43, X64, and X65.

Think: How does war affect history?



# Modern developments

## Laws changing the structure of the US banking industry



# Structure of Banking in the US

## Reasons for Consolidation

Why the large-scale consolidation occurred?

- 1 Regulators allowed inter-state purchase of banks
- 2 Economies of scale:

# Structure of Banking in the US

## Reasons for Consolidation

Why the large-scale consolidation occurred?

- ① Regulators allowed inter-state purchase of banks
- ② Economies of scale: distribute the  $F$  among larger number of loans

### Advantages of Consolidation

- Inefficient banks are driven away from the market
- Diversification of portfolios

# Structure of Banking in the US

## Reasons for Consolidation

Why the large-scale consolidation occurred?

- 1 Regulators allowed inter-state purchase of banks
- 2 Economies of scale: distribute the  $F$  among larger number of loans

### Advantages of Consolidation

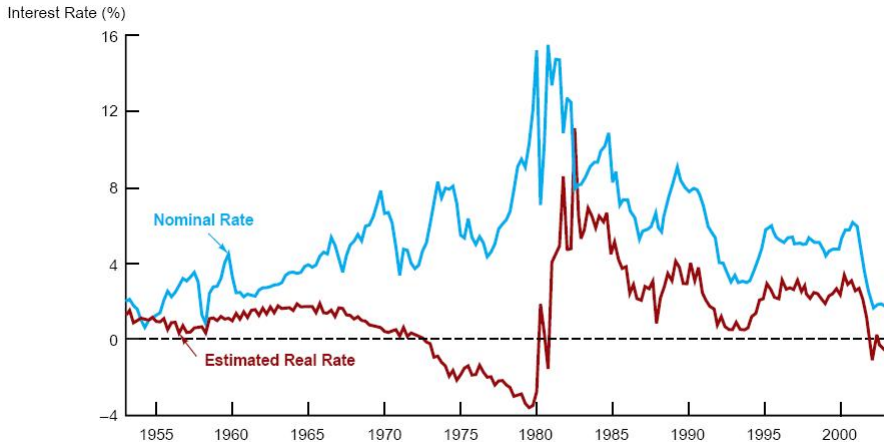
- Inefficient banks are driven away from the market
- Diversification of portfolios
- ...

### Disadvantages of Consolidation

- Lower competition
- Higher market risks
- ...

# Central Banking and Its Goals

## Nominal and Real interest rates over time



# Central Banking and Its Goals

## Nominal rates and recessions



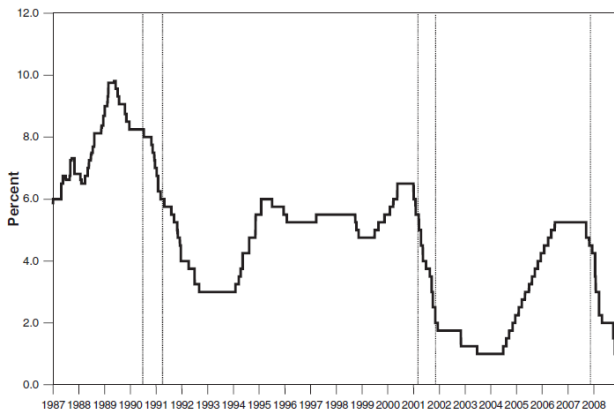
# Central Banking and Its Goals

## Nominal rates and recessions: further look

**FIGURE 27.4**

The Federal Funds Rate, 1987–2008.

*Under Alan Greenspan, the Federal Reserve responded to economic downturns by lowering the Federal Funds rate.*



Source: *Federal Reserve System.*

# A Bit of US Monetary Policy History

How were the policy instruments developing over time:

- ❶ 1913 - 1921: Discount rate was the primary tool
- ❷ Early 1920s: Open market operations accidentally discovered
- ❸ By late 1920s: OMO main instrument
- ❹ 1933: Reserve requirement introduced
- ❺ 1942-1952: Interest rate pegs to finance the Government
- ❻ 1950s-1960s: Interest rate targeting
- ❼ 1970s: Targeting monetary aggregates
- ❽ Since 1980s: Smoothing interbank interest (FED Funds) rates
- ❾ Since 2012: Targeting inflation and unemployment, while playing with the FED Funds rate



## Inflation targeting

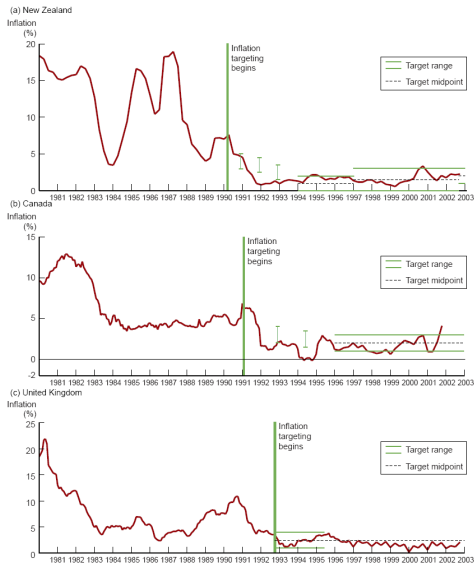
**Inflation targeting:** A MP rule in which the CB commits to an explicitly stated medium-term inflation rate (typically, 1-3%) which serves as a nominal anchor

Examples:

- ① **New Zealand, 1990:** The pioneer of inflation targeting, a success story of controlling inflation with benefits on the production side
- ② **Canada, 1991**
- ③ **UK, 1992**
- ④ **ECB, 1999:** The most independent central bank in the world

In NZ, Can, UK cases, after a short recession due to restrictive monetary policy, the economy was on its positive growth path again.

# Inflation Targeting: The Evidence



# Advantages and Disadvantages of Inflation Targeting

## Advantages

- domestic policy focus
- the big *if* of targeting monetary aggregates does not apply
- easy to understand and communicate
- reduces political pressure on the CB
- increases predictability, stabilizes expectations

# Advantages and Disadvantages of Inflation Targeting

## Advantages

- domestic policy focus
- the big *if* of targeting monetary aggregates does not apply
- easy to understand and communicate
- reduces political pressure on the CB
- increases predictability, stabilizes expectations

## Disadvantages

- not directly controllable
- effects from policy not seen immediately
- can drive the economy into recession

- ① \*\*\* Persson, Karl, (2010). An Economic History of Europe. Knowledge, Institutions and Growth, 600 to the Present. Cambridge University Press, Cambridge, UK. [**Chapter 7: Money, Credit and Banking**].
- ② \*\*\* Walton, Gary M., and Hugh Rockoff, (2010). History of the American Economy: Eleventh Edition. South-Western Cengage Learning, Mason, OH [**Chapter 19: Money, Prices and Finance in the Postbellum Era**; Chapter 27].
- ③ Mishkin, F. (2004). The Economics of Money, Banking and Financial Markets, 7th ed. or later
- ④ Friedman, Milton and Anna Schwartz, (1963). A Monetary History of the United States, 1867-1960. Princeton University Press
- ⑤ Levine, R. (2005). Finance and Growth: Theory and Evidence. In: Handbook of Economic Growth, Volume 1A, pp. 865–934