# Unit 1

## Why Study Money, Banking, and Financial Markets?

# Why Study Money, Banking, and Financial Markets

- To examine how financial markets such as bond, stock and foreign exchange markets work
- To examine how financial institutions such as banks and insurance companies work
- To examine the role of money in the economy

# Main Topics

- What is money?
- Who controls the money supply?
- Why is money important?
- Why is inflation a problem?
- How do banks make “money” (profits)?
- Why are banks important?
- How does the government regulate banks and why?
- Financial Markets and financial instruments
- What is monetary policy?
- How does the Fed conduct monetary policy?
- How are interest rates determined?

# Money

- Money is the stock of items widely used to make payment for goods and services.

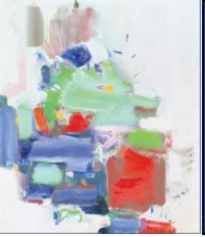
- **Money,** or the **money supply**, includes:
  - currency and coins in circulation,
  - checking accounts in depository institutions, and
  - other items, such as Certificates of Deposit (CDs), when measured more broadly.

# Figure 1-1

M1 Money Stock (M1SL)
Source: Board of Governors of the Federal Reserve System
(Billions of Dollars)
2,200
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
1960
1970
1980
1990
2000
2010
2020
Shaded areas indicate US recessions.
2011 research.stlouisfed.org

# What Determines The Money Supply?

- The **central bank** is responsible for the *trend* or *long-run* behavior of the money supply.
- Banks and non-bank public also play important roles in determining the aggregate money supply.
- In the United States, the central bank is the **Federal Reserve System** (the **Fed**).
- The Fed conducts **monetary policy.**
- **Monetary Policy** refers to the management of money supply and interest rates.

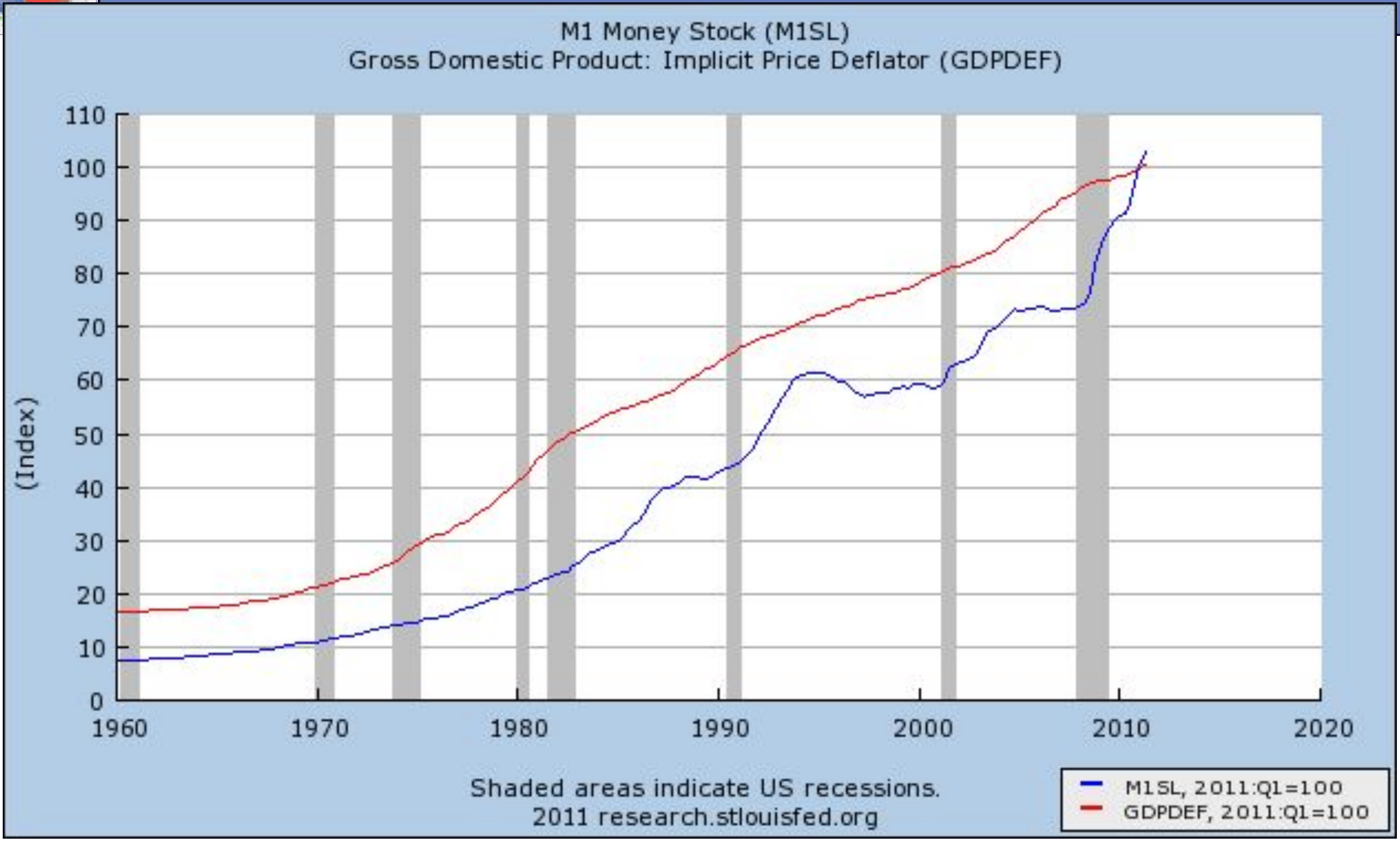


# Money, Inflation, and Deflation

- When the money supply increases more rapidly than the output of goods and services, **inflation** occurs.
- Why is Inflation a problem?
- **Deflation** is a continuing *decline* in prices and is more damaging to a nation's economic health than inflation.
- Why is deflation a problem?
- **Inflation targeting** occurs when a central bank announces an explicit inflation range it pledges to maintain and enforces policies consistent with that goal.

# Money and Business Cycles

- Evidence suggests that money plays an important role in generating business cycles
- Recessions (unemployment) and booms (inflation) affect all of us
- Monetary Theory ties changes in the money supply to changes in aggregate economic activity and the price level



M1 Money Stock (M1SL)
Gross Domestic Product: Implicit Price Deflator (GDPDEF)
(Index)
110
100
90
80
70
60
50
40
30
20
10
0
1960
1970
1980
1990
2000
2010
2020
Shaded areas indicate US recessions.
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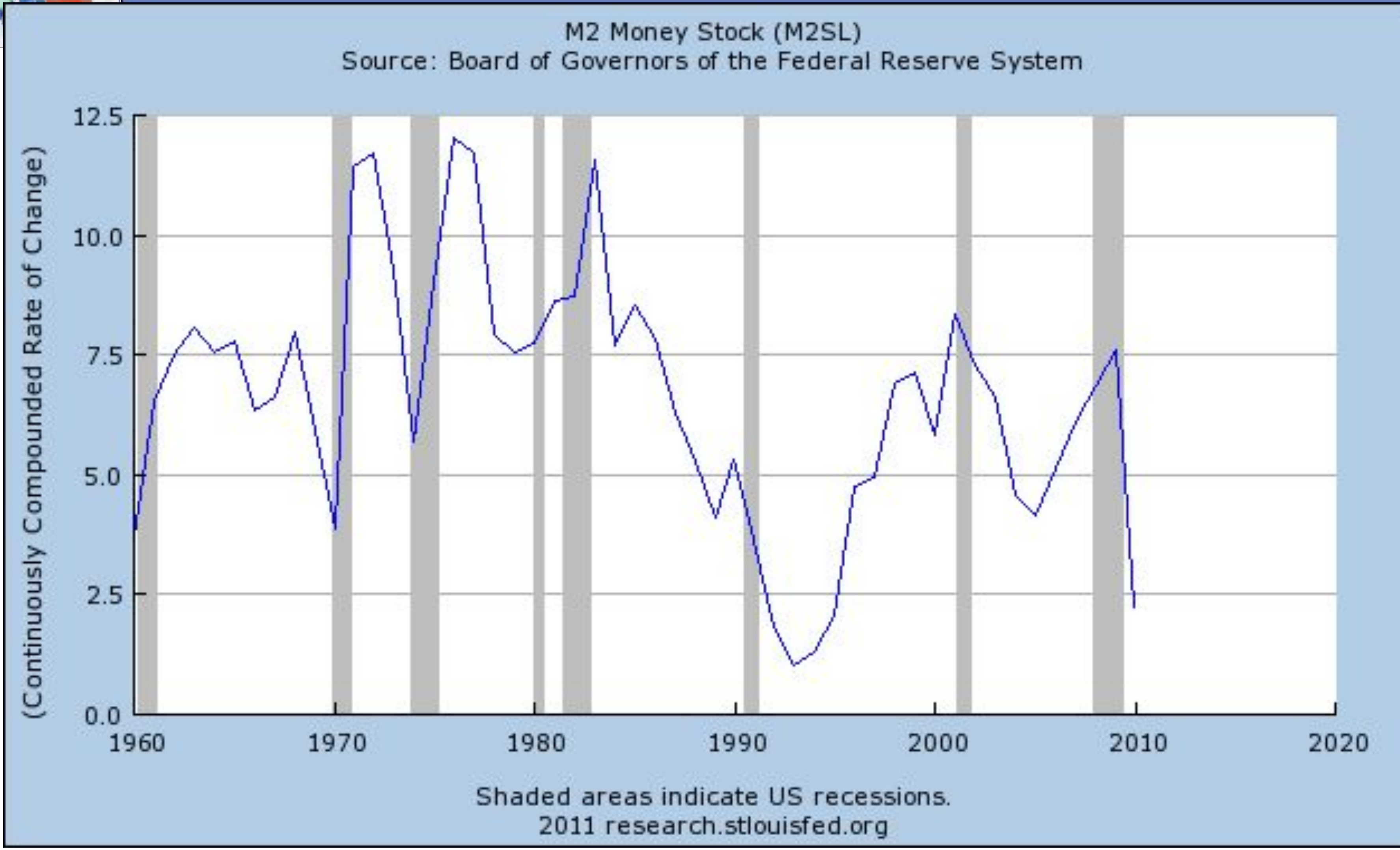
M1SL, 2011:Q1=100
GDPDEF, 2011:Q1=100


M2 Money Stock (M2SL)
Source: Board of Governors of the Federal Reserve System
(Continuously Compounded Rate of Change)
12.5
10.0
7.5
5.0
2.5
0.0
1960
1970
1980
1990
2000
2010
2020
Shaded areas indicate US recessions.
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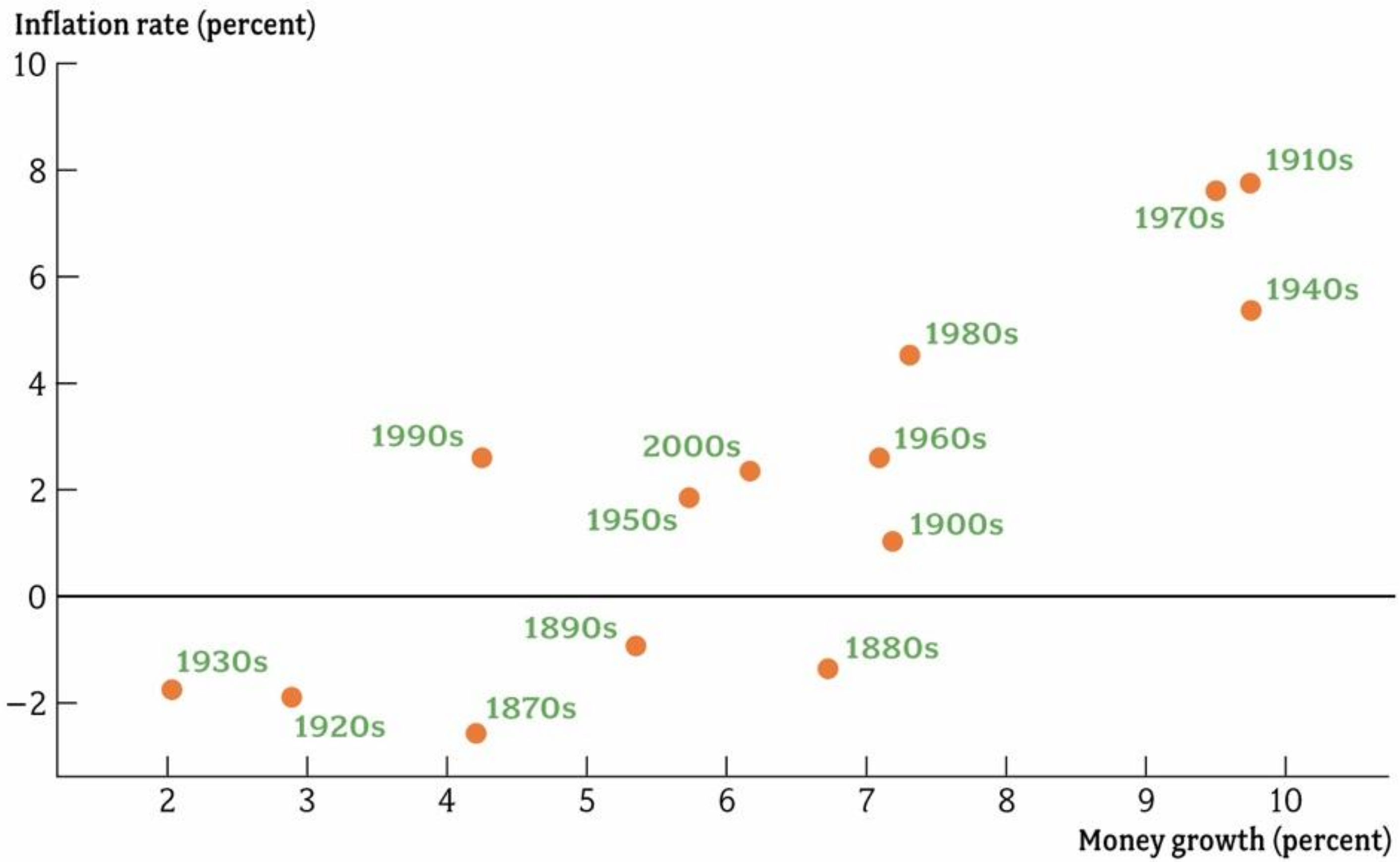



**FIGURE 8.2 Money Growth and Inflation in the United States, 1870–2005**

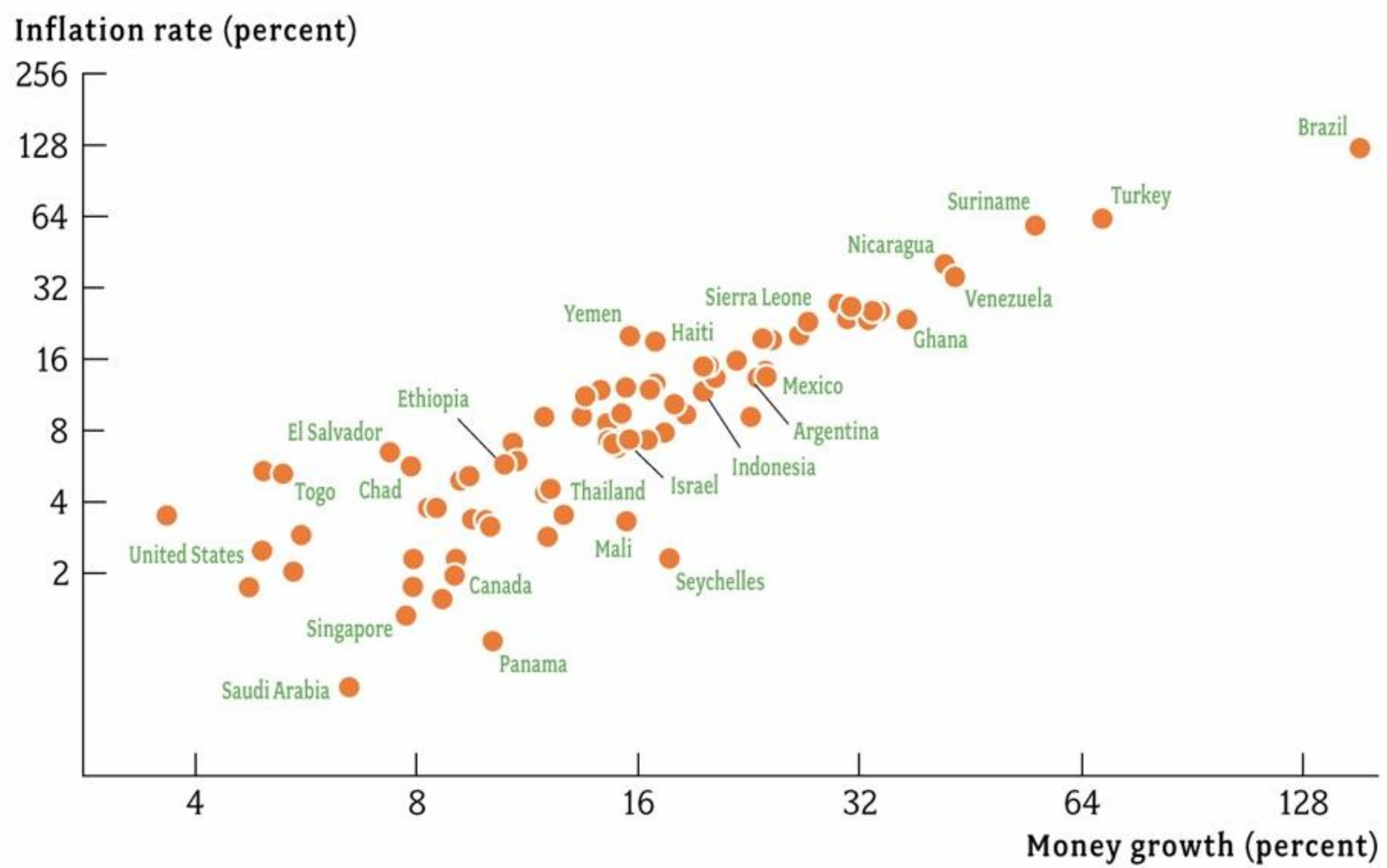



**FIGURE 8.3 Money Growth and Inflation around the World, 1990–2003**

# Key Financial Markets

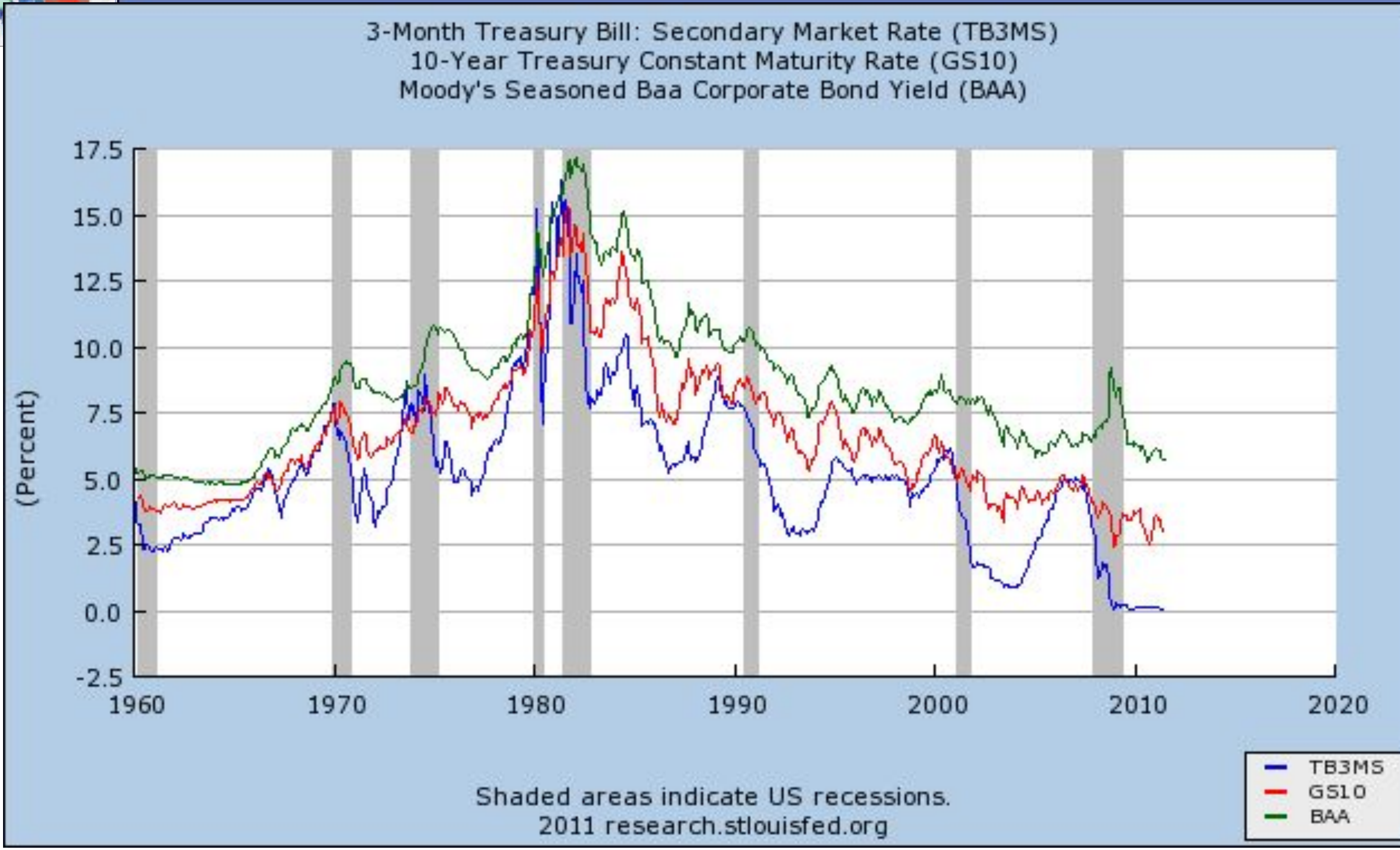
- Markets in which funds are transferred from people who have an excess of available funds to people who have a shortage of funds
- The stock market
- The bond market
- The foreign exchange (ForEx) market

# The Bond Market and Interest Rates

- A security (financial instrument) is a claim on the issuer’s future income
  or assets
- A bond is a debt security that promises to make payments periodically for a specified period of time
- Bondholders are *lenders;* stockholders are *owners*.
- An interest rate (or yield) is the cost of borrowing or the price paid for the rental of funds and are determined by market forces of supply and demand.

# Facts about interest rates

- There are many different interest rates.
- Interest rates tend to move together.
- Sometimes we ignore the differences among interest rates and focus on the interest rate level.
- The interest rate level is determined in the bond market or loanable funds market.
- There are intimate relationships among different interest rates.


3-Month Treasury Bill: Secondary Market Rate (TB3MS)
10-Year Treasury Constant Maturity Rate (GS10)
Moody's Seasoned Baa Corporate Bond Yield (BAA)
(Percent)
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
-2.5
1960
1970
1980
1990
2000
2010
2020
TB3MS
GS10
BAA
Shaded areas indicate US recessions.
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# The Stock Market

- Common stock represents a share of ownership in a corporation
- A share of stock is a claim on the earnings and assets of the corporation
- A company’s stock share price reflects the opinion of the market about the company's economic value, which ultimately depends on its future profitability.
- Major indexes reflect changing sentiment about the nation's economic prospects.
  - Dow-Jones Industrials Average (DJIA)
  - Standard and Poor's 500 Average (S&P 500)

Dow Jones Industrial Average (DJIA)
Source: Dow Jones & Company
(Index)
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
1960
1970
1980
1990
2000
2010
2020
Shaded areas indicate US recessions.
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S&P 500 Index (SP500)
Source: Standard and Poor's
(Index)
1,600
1,400
1,200
1,000
800
600
400
200
0
1950
1960
1970
1980
1990
2000
2010
2020
Shaded areas indicate US recessions.
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# The Foreign Exchange Market

- The foreign exchange market is where funds are converted from one currency into another
- The foreign exchange rate is the price of one currency in terms of another currency
- The foreign exchange market determines the foreign exchange rate

# Foreign Exchange and Trade

- **Appreciation** is an increase in the value of one nation's currency relative to another nation's currency.

- Depreciation is the opposite.

- Appreciation causes:
  - higher prices to foreign buyers of exports,
  - lower prices to domestic consumers of imports, and
  - a **trade deficit** (or a reduction in the trade surplus).

- Depreciation causes:
  - lower prices to foreign buyers of exports,
  - higher prices to domestic consumers of imports, and
  - a **trade surplus** (or a reduction in the trade deficit.)


U.S. / Euro Foreign Exchange Rate (DEXUSEU)
Source: Board of Governors of the Federal Reserve System
(U.S. Dollars to One Euro)
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
1998
2000
2002
2004
2006
2008
2010
2012
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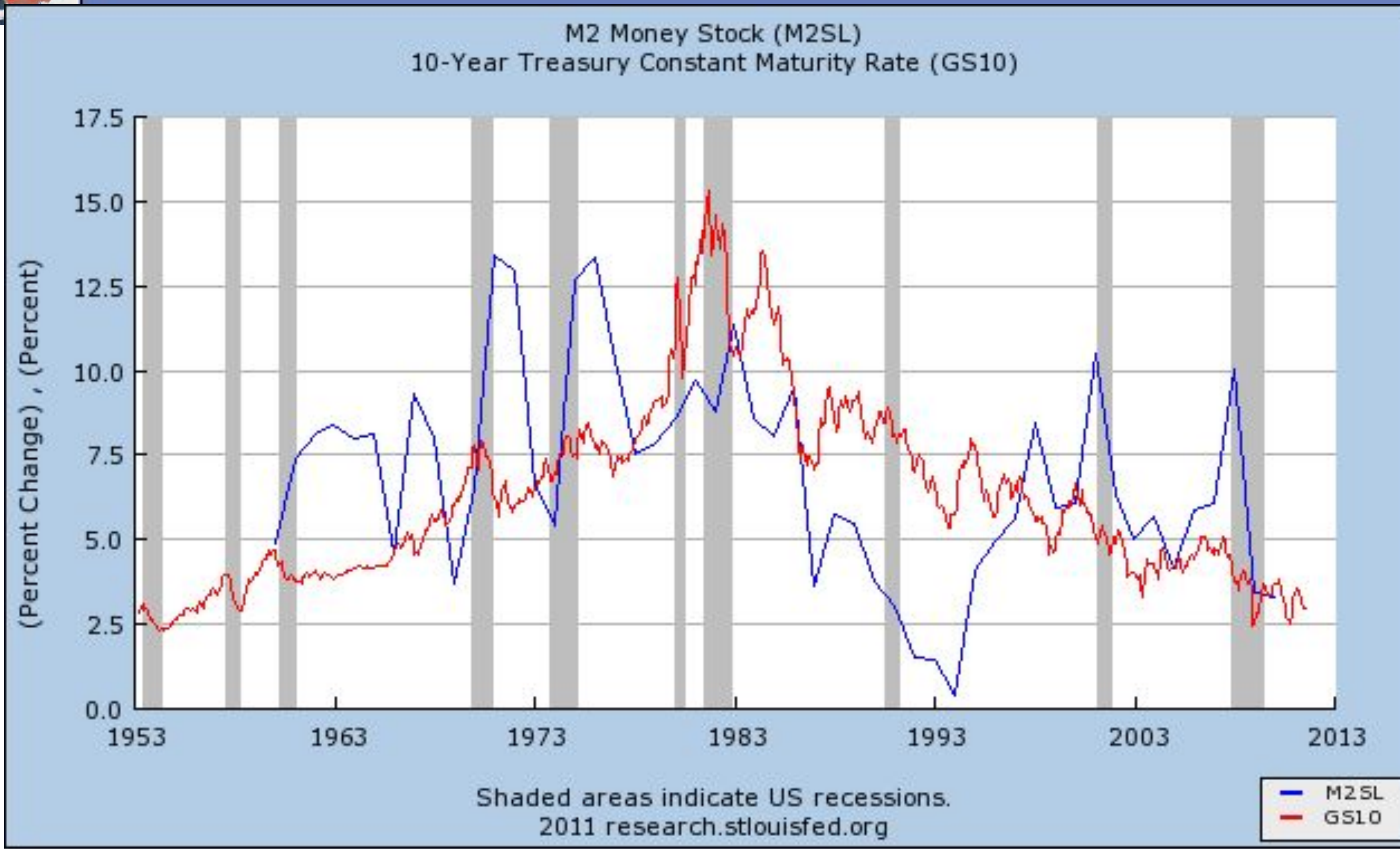
2011 research.stlouisfed.org

# Banking and Financial Institutions

- Financial Intermediaries—institutions that borrow funds from people who have saved and make loans to other people
- Banks—institutions that accept deposits and make loans
- Other Financial Institutions—insurance companies, finance companies, pension funds, mutual funds and investment banks
- Financial Innovation—in particular, the advent of the information age and e-finance

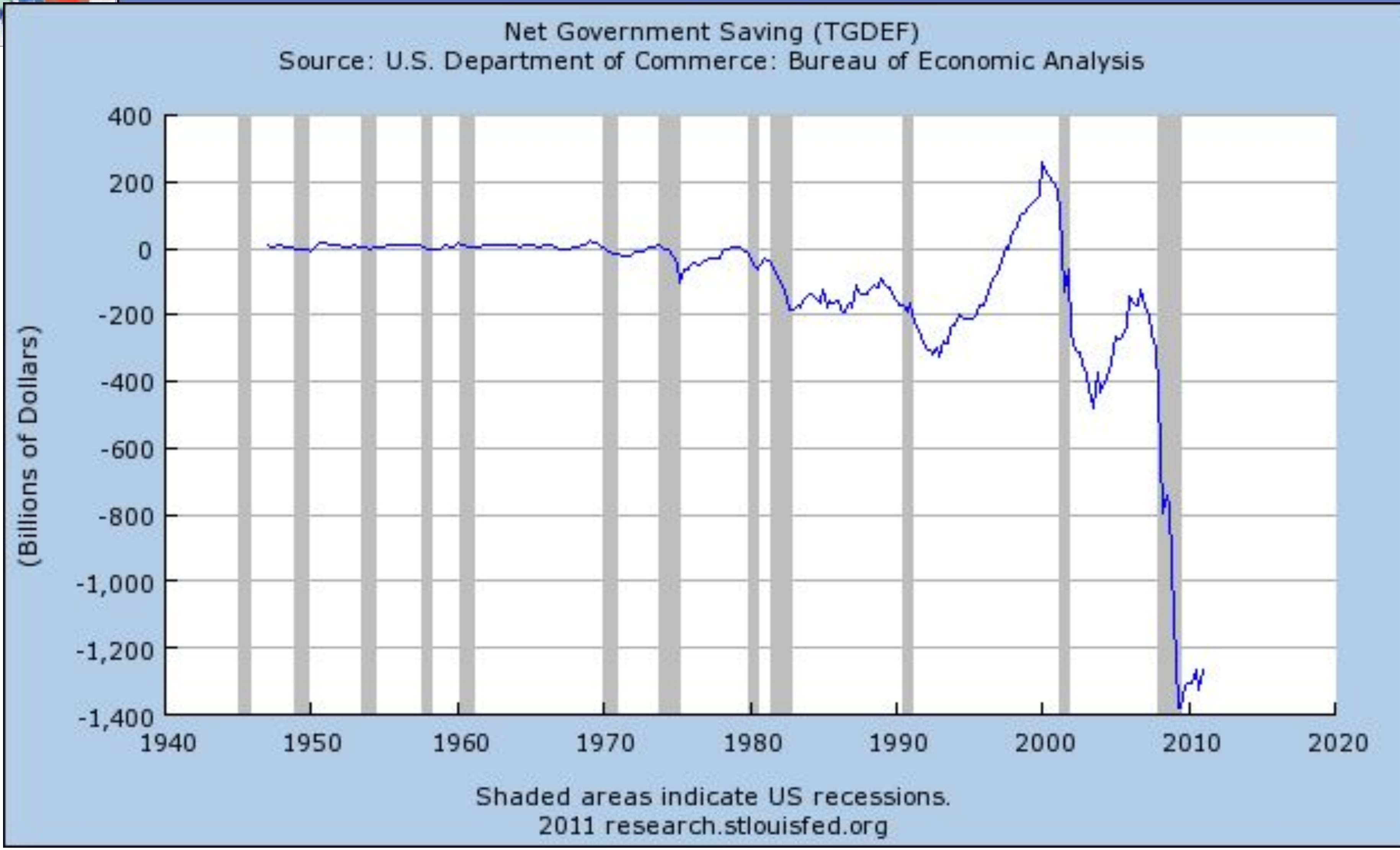
# Money and Interest Rates

- Interest rates are the price of money
- Prior to 1980, the rate of money growth and the interest rate on long-term Treasure bonds were closely tied
- Since then, the relationship is less clear but still an important determinant of interest rates


M2 Money Stock (M2SL)
10-Year Treasury Constant Maturity Rate (GS10)
(Percent Change) , (Percent)
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
1953
1963
1973
1983
1993
2003
2013
Shaded areas indicate US recessions.
2011 research.stlouisfed.org
M2SL
GS10

# Monetary and Fiscal Policy

- Monetary policy is the management of the money supply and interest rates
  - Conducted in the U.S. by the Federal Reserve Bank (Fed)
- Fiscal policy is government spending and taxation
  - Budget deficit is the excess of expenditures over revenues for a particular year
  - Budget surplus is the excess of revenues over expenditures for a particular year
  - Any deficit must be financed by borrowing


Net Government Saving (TGDEF)
Source: U.S. Department of Commerce: Bureau of Economic Analysis
(Billions of Dollars)
400
200
0
-200
-400
-600
-800
-1,000
-1,200
-1,400
1940
1950
1960
1970
1980
1990
2000
2010
2020
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