

CHAPTER

28

The Financial Sector and the Economy

Chapter Goals

- Discuss the functions and measures of money.
- Define banks and explain how they create money.
- Explain why the financial sector is so important to macroeconomic debates.
- Explain the role of interest rates in an economy.

The Financial Sector and the Economy

The financial sector is central to almost all macroeconomic debates.

The **real sector** is the market for the production and exchange of goods and services.

The **financial sector** is the market for the creation and exchange of financial assets.

- Financial assets include money, stocks, and bonds
- Plays a central role in organizing and coordinating our economy

The Definition of Money

Money is a highly liquid financial asset that's generally accepted in exchange for other goods, is used as a reference in valuing other goods, and can be stored as wealth.

Liquid means to be easily changeable into another asset or good.

- Money is a financial asset that makes the real economy function smoothly.
- Most of what is considered money today is not currency but exists in the form of electronic holdings.

The Functions of Money

1. Medium of exchange

- It does not have to have any inherent value to serve this function.
- It makes it possible to trade real goods and services without bartering.

2. Unit of account

- It serves as a measure of value.
- It is useful in this function as long as its value relative to other prices does not change too quickly.

3. Store of wealth

The U.S. Central Bank: The Fed

The **Federal Reserve Bank (the Fed)** is the U.S. central bank, whose liabilities serve as cash in the United States.

- Federal Reserve notes are liabilities of the Fed that serve as cash in the United States.

A **bank** is a financial institution whose primary function is accepting deposits for, and lending money to, individuals and firms.

Individuals' deposits in savings and checking accounts serve the same purpose as does currency and are also considered money.

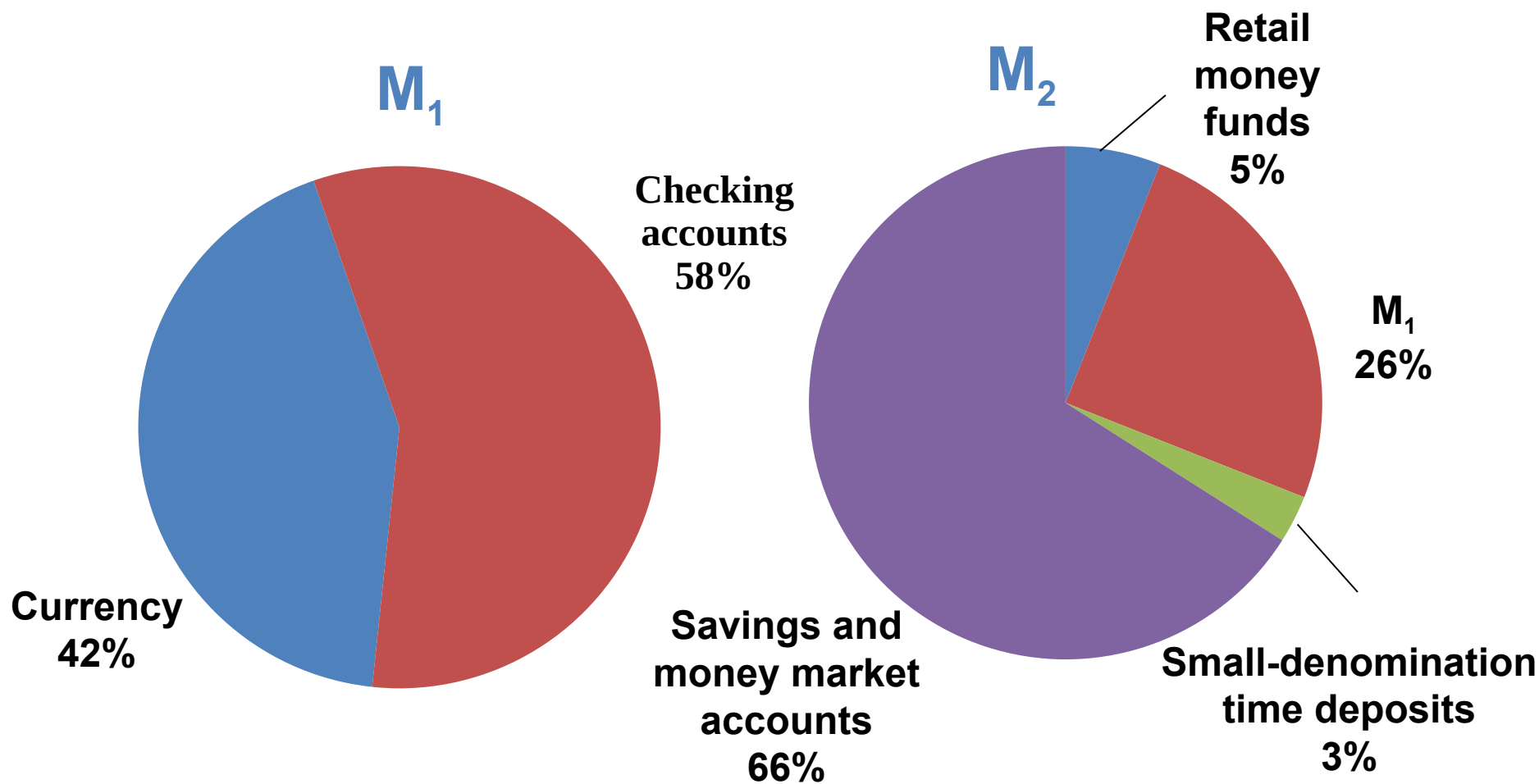
Alternative Measures of Money

Economists have developed different measures of money.

Two are M_1 and M_2 .

- M_1 consists of currency in the hands of the public plus checking accounts.
- M_2 is made up of M_1 plus savings and money market accounts, small-denomination time deposits (CDs), and retail money funds.

Components of M_1 and M_2



Distinguishing Between Money and Credit

- Credit cards are not money.
- Credit card balances are assets of a bank in the form of a prearranged loan and liabilities of the credit card user.
- Generally credit card holders carry less cash.
- A debit card serves the same function as a checkbook-allows you to spend money in your bank account.

The Creation of Money: Step One

The Fed creates money by simply printing currency.

- Currency is a financial asset to the bearer and a liability to the Fed.

The bearer deposits the currency in a checking account at the bank.

- The form of money has changed from currency to a bank deposit.

The Creation of Money: Step Two

The bank lends a fraction of the deposit.

The amount of money has expanded:

Initial deposit + new loan

The amount of money is multiplied.

The Process of Money Creation

Reserves are currency and deposits a bank keeps on hand or at the Fed or central bank, to manage the normal cash inflows and outflows.

The **reserve ratio** is the ratio of reserves to deposits a bank keeps as a reserve against cash withdrawals.

Banks can keep more reserves: excess reserve ratio.

Reserve ratio = required reserve ratio + excess reserve ratio

Determining How Many Demand Deposits Will Be Created

To find the total amount of deposits that will be created, multiply the original deposit by **$1/r$** , where **r** is the reserve ratio.

If the original deposit is **\$100** and the reserve ratio is **10 percent (0.1)**, the amount of money ultimately created is:

$$1/r = 1/0.1 = 10$$

$$\text{\$100} \times 10 = \text{\$1,000}$$

New money created = $\text{\$1000} - \text{\$100} = \text{\$900}$.

Calculating the Money Multiplier

We will call the ratio $1/r$ the money multiplier.

- The **money multiplier** is the measure of the amount of money ultimately created per dollar deposited in the banking system, when people hold no currency.

It tells us how much money will ultimately be created by the banking system from an initial inflow of money.

The higher the reserve ratio, the smaller the money multiplier, and the less money will be created.

An Example of the Creation of Money

Round	Bank Gets	Bank Keeps ($r = 20\%$)	Bank Loans (80%)
1	\$10,000	\$2,000	\$8,000
2	\$8,000	\$1,600	\$6,400
3	\$6,400	\$1,280	\$5,120
4	\$5,120	\$1,024	\$4,069
...	...	...	...
Infinite	\$50,000	= \$10,000	+ \$40,000

Why is the Financial Sector Important to Macro?

For every real transaction, there is a financial transaction that mirrors it.

The financial sector channels savings back into spending.

For every financial asset, there is a corresponding financial liability.

- **Financial assets** are assets such as stocks or bonds, whose benefit to the owner depends on the issuer of the asset meeting certain obligations.
- **Financial liabilities** are obligations by the issuer of the financial asset.

The Financial Sector as a Conduit for Savings

Financial institutions channel savings back into the spending stream as loans.

Saving is outflows from the spending stream from government, households, and corporations.

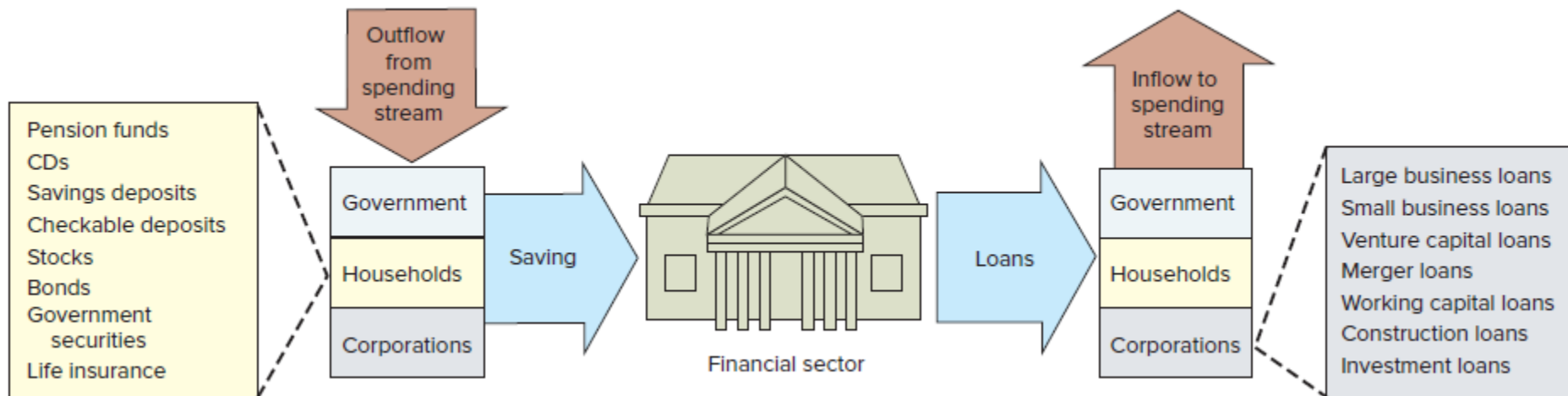
- Savings deposits, bonds, stocks, life insurance

Loans are made to government, households, and corporations.

- Business loans, venture capital loans, construction loans, investment loans

The Financial Sector as a Conduit for Savings

Financial institutions channel saving (outflows from the spending stream) back into the spending stream as loans.



The Role of Interest Rates in the Financial Sector

The **interest rate** is the price paid for use of a financial asset.

The long-term interest rate is the price paid for financial assets with long maturities.

- The market for long-term financial assets is called the loanable funds market.

The short-term interest rate is the price paid for financial assets with short maturities.

- Short-term financial assets are called money.

Why People Hold Money

The only reason people would be willing to hold money is if they get some benefit from doing so.

- The **transactions motive** is the need to hold money for spending.
- The **precautionary motive** is holding money for unexpected expenses and impulse buying.
- The **speculative motive** is holding cash to avoid holding financial assets whose prices are falling.

The Many Interest Rates in the Economy

The economy doesn't have just a single interest rate; it has many.

Each financial asset will have an implicit interest rate associated with it.

In a multiple-asset market, the potential for the interest rate in the loanable funds market to differ from the interest rate in the market for a particular asset is large.

- The result can be a financial asset market bubble.

The Many Interest Rates in the Economy

An example of a financial asset market bubble:

- In the early 2000s prices of houses increased by 10% to 15% per year.
- Many people bought houses for speculative purposes.
- In 2006, people lowered their expectations of housing price appreciation.
- The demand for housing decreased substantially, and the equilibrium price fell.

Chapter Summary (1 of 2)

Money is a highly liquid financial asset that serves as a unit of account, a medium of exchange, and a store of wealth.

There are various measures of money; the two most important are M_1 and M_2 .

Banks create money by loaning out deposits.

The money multiplier is $1/r$. It tells you the amount of money ultimately created per dollar deposited in the banking system.

The financial sector is the market where financial assets are created and exchanged.

Chapter Summary (2 of 2)

Interest rates play a crucial role in channeling savings back into the economy as investment.

People hold money for three reasons: (1) the transactions motive, (2) the precautionary motive, and (3) the speculative motive. The demand for money is inversely related to the interest rate paid on money.

Dramatically higher interest rates paid on particular assets compared to other financial assets can cause bubbles, which can cause problems for an economy.