The financial sector and the economy

SUMMARY

After reading this chapter you should be able to…

- Explain why the financial sector is central to almost all macroeconomic debates.
- Explain what money is .
- Enumerate the three functions of money.
- State the alternative measures of money and their primary components.
- Explain how banks create money.
- Claculate both the simple and the approximate real-world money multiplier.
- Explain how a financial panic can occur and the potential problem with government guarantees to prevent such panics.

INTRODUCTION

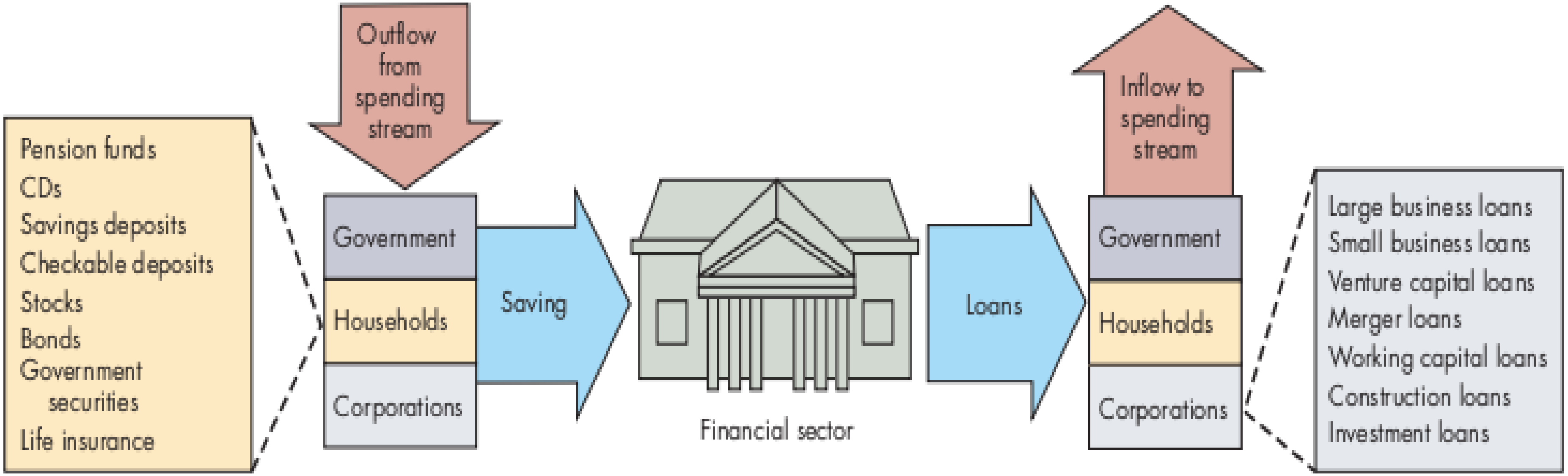
Introduction

The financial sector is central to almost all macroeconomic debates because behind every real transaction, there is a financial transaction that mirrors it.

WHY IS THE FINANCIAL SECTOR IMPORTANT TO MACRO?

Why is the financial sector important to macro?

The financial sector as a conduit for savings

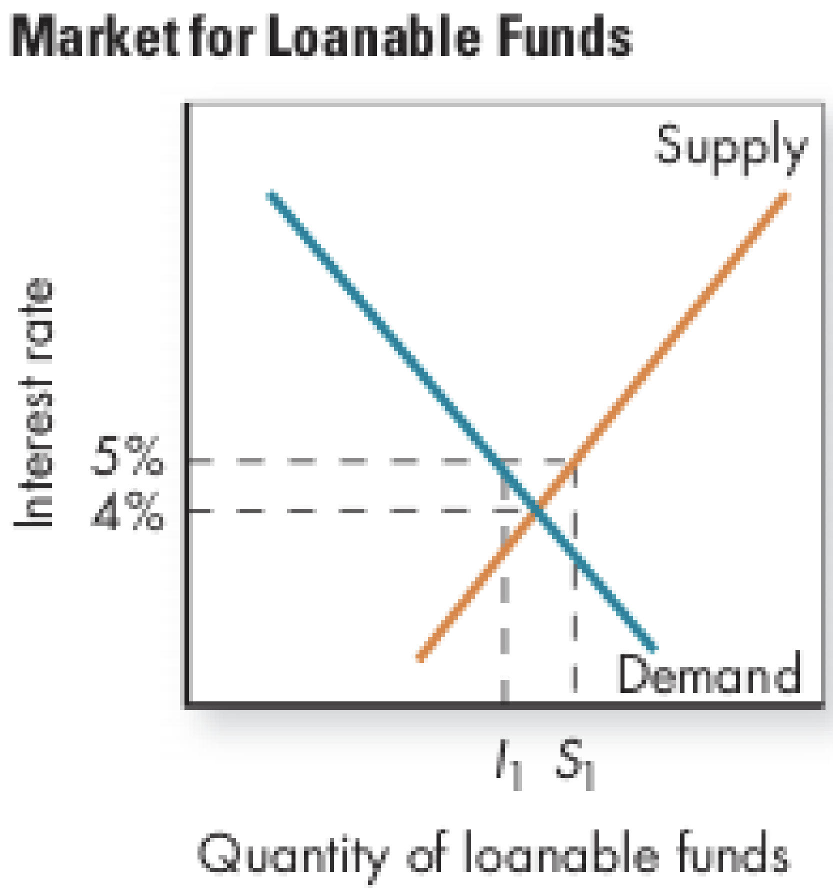


Why is the financial sector important to macro?

- Financial assets: *Assets such as stocks or bonds, whose benefit to the owner depends on the issuer of the asset meeting certain obligations.*
- The interest rate is *the price paid for the use of a financial asset.*
- A Bond is *a promises to pay a certain amount plus interest in the future.*

THE ROLE OF INTEREST RATES IN THE FINANCIAL SECTOR

The role of interest rates in the financial sector



THE DEFINITION AND FUNCTION OF MONEY

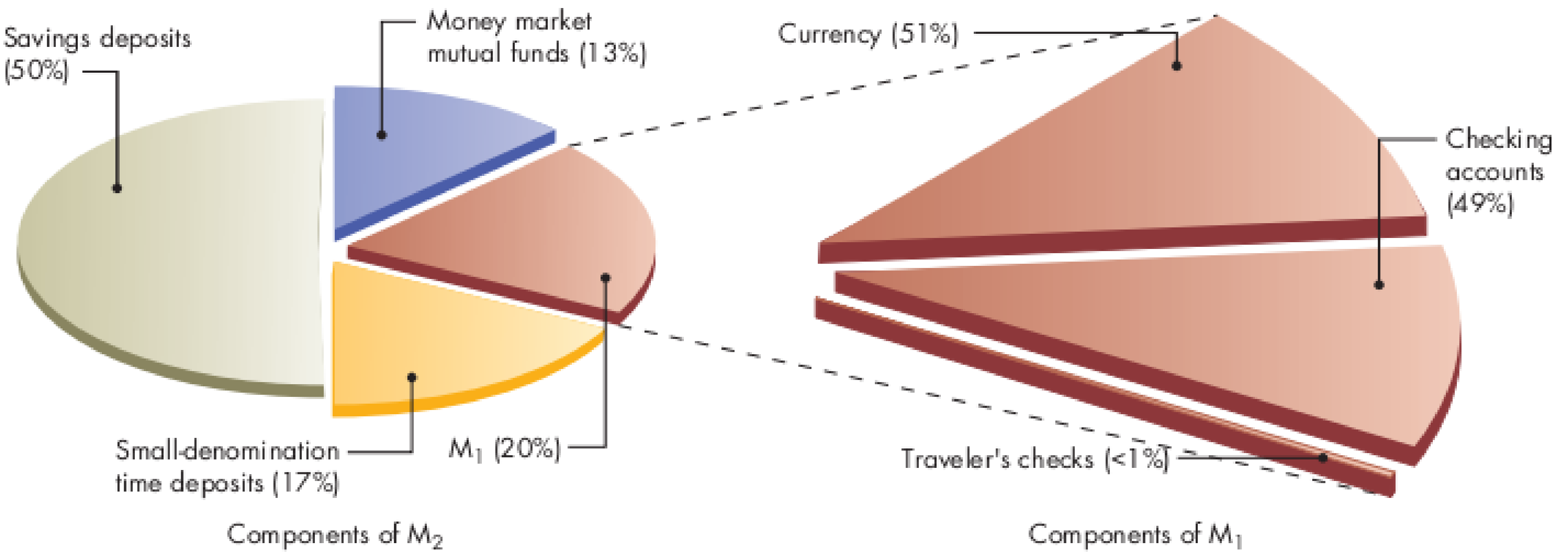
The definition and functions of money

- Money is *a highly liquid financial asset that's generally accepted in exchange of other goods, is used as a reference in valuing other goods, and can be stored as wealth.*
- Functions of Money:
  - It serves as a medium of exchange
  - It serves as a unit of account
  - It serves as a store of wealth

ALTERNATIVE MEASURES OF MONEY

Alternative measures of money

- <u>3 different measures of money:</u>
  - M1: *consists of currency in the hands of the public*
  - M2: *made up of M1 plus saving deposits, smll-denomination time deposits, and money market mutual fund shares.*
  - L: *Includes (almost) all short-term assets.*



BANKS AND THE CREATION OF MONEY

Banks and the creation of money

- How banks create money?

  - A bank *is a financial institution whose primary function is holding money for, and lending money to, individuals and firms.*
  - Banks create money *because a bank's liabilities are defined as money. So when a bank incurs liabilities it creates money.*
  - *Banking is profitable.*

Banks and the creation of money

- <u>The money multiplier</u>
  - How many demand deposits will be created

$$\text{Amount of demand deposits} = \frac{1}{r} \times \$100 = \$1{,}000$$

Initial money = \$100

r is the reserve ratio

  - Calculating the money multiplier

$$\frac{1}{r} = \frac{1}{0.10} = 10$$

  - Real-world money multiplier

$$\text{Real - World Money multiplier} = \frac{1+c}{r+c}$$

c is the ratio of money people hold in currency to the money they hold as deposits

EXAMPLE

The money-creating process

- Reserve ratio: 20%
- John Finder finds $10,000 in currency, which he deposits in the bank. Thus, he has $10,000 in his checking account and the bank has $8,000 to lend out. Once it lends that money to Fred Baker, there is $8,000 of additional money in the economy. Fred Baker uses the money to buy a new oven from Mary Builder, who, in turn, deposits the money back into the banking system. Big Bank lends out $6,400.

The money-creating process

Round	Bank Gets		Bank Keeps (reserve ratio: 20%)		Bank Loans (80% Person borrows
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		$4,096
5	$4,096		$819		$3,277
	$33,616	=	$6,723	+	$26,893
	Total money after 5 rounds				
Infinite	$50,000	=	$10,000	+	$40,000
	Eventual money creation				

The money-creating process

- After 5 rounds we reach a point where total demand deposits are \$33,616, and the bank has \$6,723 in reserves. This is approaching the \$50,000 we'd arrive at using the money multiplier:

$$\frac{1}{r}(\$10,000) = \frac{1}{.2}(\$10,000) = 5(\$10,000) = \$50,000$$

- If we carried it out for more rounds, we'd actually reach what the formula predicted.

The money-creating process

- When people hold currency, the money multiplier is

$$Real\text{ - }World\ Money\ multiplier = \frac{1+c}{r+c}$$

- Say the bank keep 10% in reserve and the ratio of individuals' currency holdings to their deposits is 25%,

$$Real\text{ - }World\ Money\ multiplier = \frac{1+0.25}{0.1+0.25} = \frac{1.25}{0.35} = 3.43$$

- <u>The more cash people hold, the smaller the money multiplier.</u>

REGULATION OF BANKS AND THE FINANCIAL SECTOR

Regulation of banks and the financial sector

- Financial panics
  - Bad loans
  - Government role
  - Bank risks

- 1997 Asian financial crisis

- The 2008 financial crisis