

In this chapter, look for the answers to these questions:

- What's the difference between saving and investment?
- What are the three kinds of saving?
- How does the financial system coordinate saving and investment?
- How do govt. policies affect saving, investment, and the interest rate?

(PART - I)-Ch-26 SAVING & INVESTMENT

SAVING & INVESTMENT IN NATIONAL INCOME ACCOUNTS

Savings

Savings is the portion of current income, not spent on consumption.

Investments

Investment is the expenditure made by firm towards purchase of assets with the goal of increasing future income.

Risk, Return, and Liquidity

Risk

The chance that the value of an investment / saving will decrease.

Return

The profit or yield from an investment / saving.

Liquidity

The ability of an investment / saving to be converted into cash quickly without loss of value.

Risk, Return & Liquidity

Savings

- Low risk
- Low return
- High liquidity

Investments

- High risk
- High return
- Low liquidity

REASONS TO SAVE

- Provide for unexpected emergencies.
- Purchase expensive items in the future.
- Ensure retirement.
- Buy shares of a mutual fund
- Buy corporate bonds or equities
- Purchase a certificate of deposit at the bank

PLACES TO SAVE

- √ Savings Accounts
- ✓ Money Market Accounts
- ✓ Guaranteed Investment Certificates
- ✓ Registered Savings Accounts
- √ Savings Bonds
- ✓ Insurance

The Meaning of Saving and Investment...

- Investment is the purchase of new capital.
- Examples of investment:
 - General Motors spends \$250 million to build a new factory in Flint, Michigan.
 - You buy \$5000 worth of computer equipment for your business.
 - Your parents spend \$300,000 to have a new house built.

Remember: In economics, investment is NOT the purchase of stocks and bonds!

Different Kinds of Saving

Private saving

= The portion of households' income that is not used for consumption or paying taxes

$$= Y - T - C$$

Disposable Income = Y - T (Take-home pay)

Private Saving

= Disposable Income – Consumption Expenditure

$$= (Y - T) - C = Y - T - C = Y - (T + C)$$

Public saving

= Tax revenue less government spending

$$= T - G$$

Budget Deficits and Surpluses

Budget surplus

An excess of tax revenue over govt spending

$$=> T - G > 0 => T > G$$

=> PUBLIC SAVING IS POSITIVE

Budget deficit

A shortfall of tax revenue from govt spending

$$=> T - G < 0 => T < G$$

=> PUBLIC SAVING IS NEGATIVE

National Saving

National saving

= private saving + public saving

=
$$(Y - T - C) + (T - G)$$

= $Y - 7' - C + 7' - G$

$$=$$
 Y $-$ C $-$ G

= the portion of national income (Y) that is not used for consumption (C) or government purchases (G)

Saving and Investment

Recall the national income accounting identity:

$$Y = C + I + G + NX$$

For the rest of this chapter, focus on the closed economy case:

$$Y = C + I + G$$

Solve for **I**:

national saving

$$I = Y - C - G = (Y - T - C) + (T - G)$$

Saving = investment in a closed economy

ACTIVE LEARNING 1

A. Calculations

- Suppose GDP equals \$10 trillion, consumption equals \$6.5 trillion, the government spends \$2 trillion and has a budget deficit of \$300 billion.
- Find public saving, taxes, private saving, national saving, and investment.

ACTIVE LEARNING 1

Answers, part A

Given:

$$Y = 10.0T$$
, $C = 6.5T$, $G = 2.0T$, $G - T = 0.3T$

Public saving = $\mathbf{T} - \mathbf{G} = -0.3T$

Taxes: T = G - 0.3 = 1.7T

Private saving = Y - T - C = 10 - 1.7 - 6.5 = 1.8T

National saving = Y - C - G = 10 - 6.5 - 2 = 1.5T

Investment = National saving = 1.5T

B. How a tax cut affects saving

- Use the numbers from the preceding exercise, but suppose now that the government cuts taxes by \$200 billion.
- In each of the following two scenarios, determine what happens to public saving, private saving, national saving, and investment.
 - 1. Consumers save the full proceeds of the tax cut.
 - 2. Consumers save 1/4 of the tax cut and spend the other 3/4.

ACTIVE LEARNING 1

Answers, part B

In both scenarios, public saving falls by \$200 billion, and the budget deficit rises from \$300 billion to \$500 billion.

- 1. If consumers save the full \$200 billion, national saving is unchanged, so investment is unchanged.
- 2. If consumers save \$50 billion and spend \$150 billion, then national saving and investment each fall by \$150 billion.

ACTIVE LEARNING 1 C. Discussion questions

The two scenarios from this exercise were:

- 1. Consumers save the full proceeds of the tax cut.
- 2. Consumers save 1/4 of the tax cut and spend the other 3/4.
- Which of these two scenarios do you think is more realistic?
- Why is this question important?

ACTIVE LEARNING 1 Discussion....

Suppose a tax cut causes your annual take-home pay to rise from \$40,000 to \$42,000. What would you do with that extra \$2000? Would you save ALL of it? Or would you spend at least part of it?

In this light, most of us would agree that the most realistic scenario involves consumers spending at least part of the proceeds of the tax cut.

The answer to the first question determines whether a tax cut reduces investment. This is important because a fall in investment would cause, in the long run, a fall in the standard of living, according to what we learned in the Production and Growth chapter (25).

(PART-II)-Ch-25 THE MARKETS FOR LOANABLE FUNDS

(A Supply-Demand Model of the financial system)

The Market for Loanable Funds

(A supply-demand model of the financial system)

Helps us to understand:

- How the financial system coordinates saving & investment
- How equilibrium real interest rate is determined through DLF and SLF
- How govt. policies and other factors affect saving, investment, the interest rate

The Market for Loanable Funds...

Assume: only one financial market

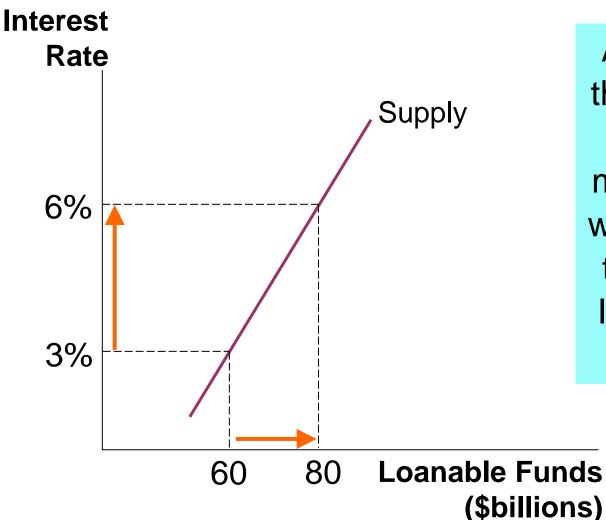
- All savers deposit their saving in this market.
- All borrowers take out loans from this market.
- There is one interest rate, which is both the return to saving and the cost of borrowing.

The Market for Loanable Funds

The supply of loanable funds comes from saving:

- Households with extra income can loan it out and earn interest.
- Public saving,
 - If positive, adds to national saving and the supply of loanable funds.
 - If negative, it reduces national saving and the supply of loanable funds.

The Slope of the Supply Curve



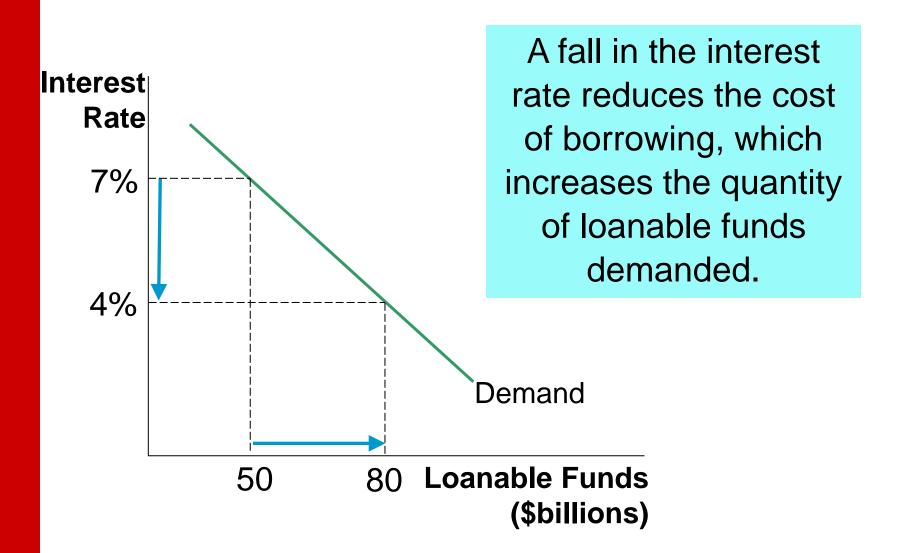
An increase in the interest rate makes saving more attractive, which increases the quantity of loanable funds supplied.

The Market for Loanable Funds

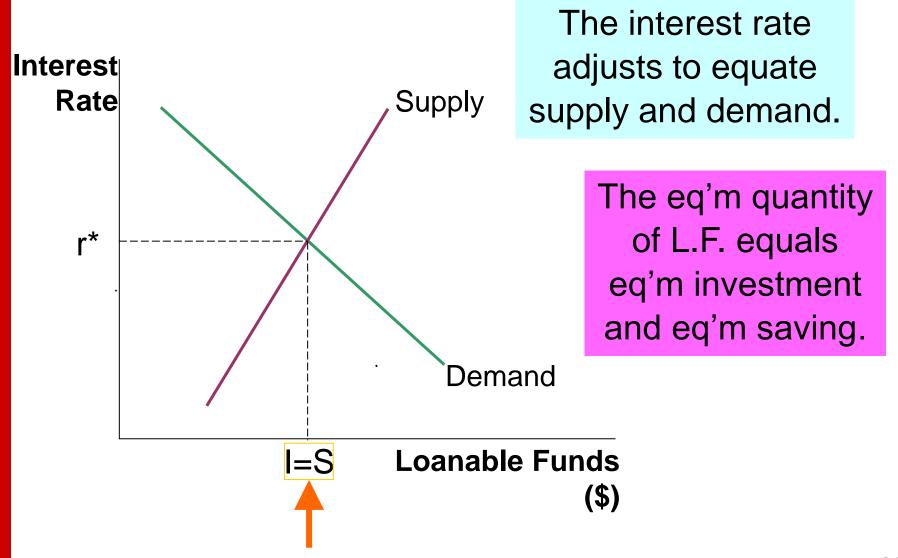
The demand for loanable funds comes from investment:

- Firms borrow the funds they need to pay for new equipment, factories, etc.
- Households borrow the funds they need to purchase new houses.

The Slope of the Demand Curve

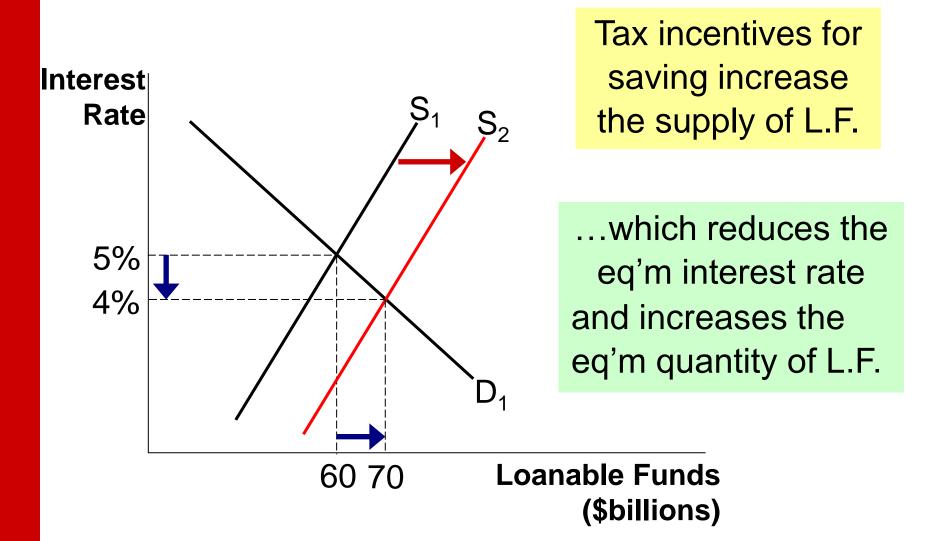


Equilibrium

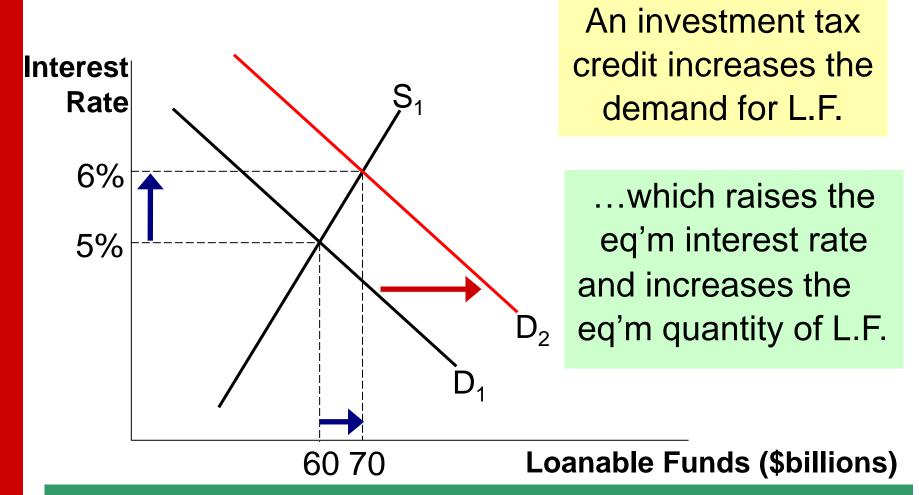


Effect of Govt. policies on Saving, Investment, the interest rate

Policy 1: Saving Incentives



Policy 2: Investment Incentives



Investment tax credit: An amount that businesses are allowed by law to deduct from their taxes, reflecting an amount they reinvest in themselves.

Note: Investment tax credits are structured to reward and encourage economic growth.

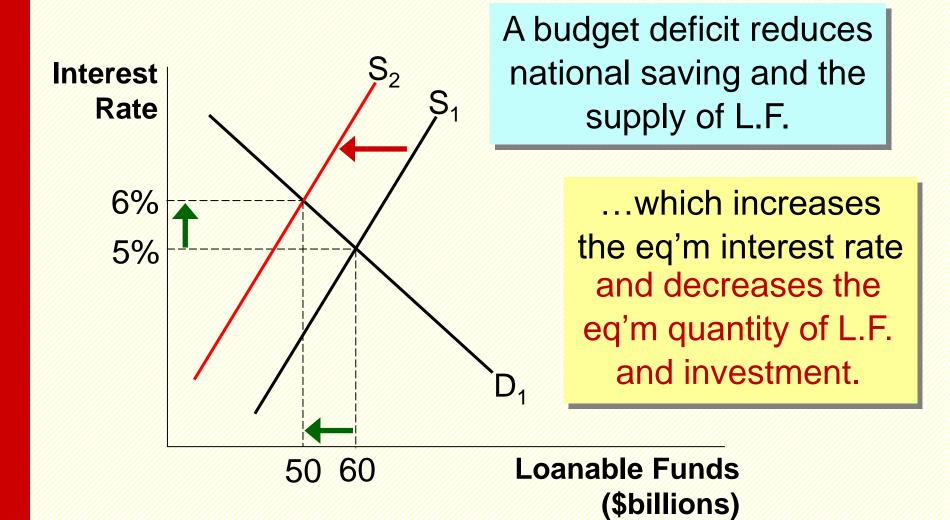
ACTIVE LEARNING 2 Exercise

Use the loanable funds model to analyze the effects of a government **budget deficit**:

- Draw the diagram showing the initial equilibrium.
- Determine which curve shifts when the government runs a budget deficit.
- Draw the new curve on your diagram.
- What happens to the equilibrium values of the interest rate and investment?

ACTIVE LEARNING 2

Answers



Budget Deficits, Crowding Out, and Long-Run Growth

- Our analysis: Increase in budget deficit causes fall in investment.
 - The govt. borrows to finance its deficit, leaving less funds available for investment.
- This is called crowding out (Increase in Govt spending (G) leads to decrease in private investment (I))
- Recall from the preceding chapter: Investment is important for long-run economic growth.
 Hence, budget deficits reduce the economy's growth rate and future standard of living.

Policy 3.2: Govt. Budget Surplus

