

Macroeconomics CHAPTER 9

Savings, Investment Spending, and the Financial System

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What you will learn in this chapter:

- ④ The relationship between savings and investment spending
- ④ About the **loanable funds market**, which shows how savers are matched with borrowers
- ④ The purpose of the four principal types of **assets**: stocks, bonds, **loans**, and **bank deposits**
- ④ How **financial intermediaries** help investors achieve **diversification**
- ④ Some competing views of what determines stock prices and why stock market fluctuations can be a source of macroeconomic instability

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Matching Up Savings and Investment Spending

>According to the **savings–investment spending identity**, savings and investment spending are always equal for the economy as a whole.

>The **budget surplus** is the difference between tax revenue and government spending when tax revenue exceeds government spending.

>The **budget deficit** is the difference between tax revenue and government spending when government spending exceeds tax revenue.

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Matching Up Savings and Investment Spending

>The **budget balance** is the difference between tax revenue and government spending.

>**National savings**, the sum of private savings plus the budget balance, is the total amount of savings generated within the economy.

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The Savings–Investment Spending Identity in a Closed Economy

In a closed economy: $GDP = C + I + G$

$$S_{\text{Private}} = GDP + TR - T - C$$

$$S_{\text{Government}} = T - TR - G$$

$$NS = S_{\text{Private}} + S_{\text{Government}} = (GDP + TR - T - C) + (T - TR - G)$$

$$= GDP - C - G$$

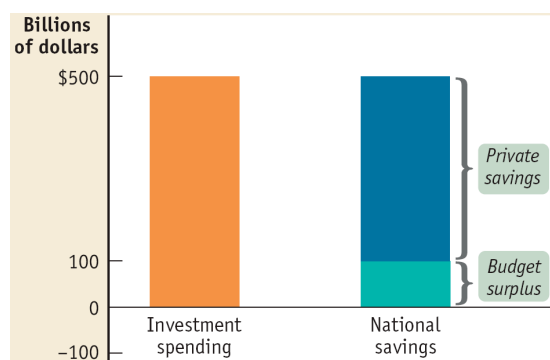
Hence, **$I = NS$**

Investment spending = National savings in a closed economy

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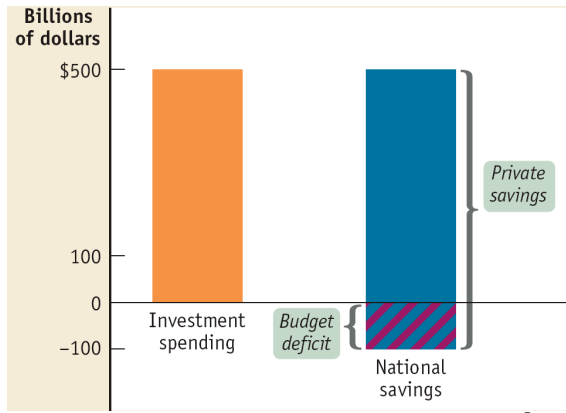
A Budget Surplus



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A Budget Deficit



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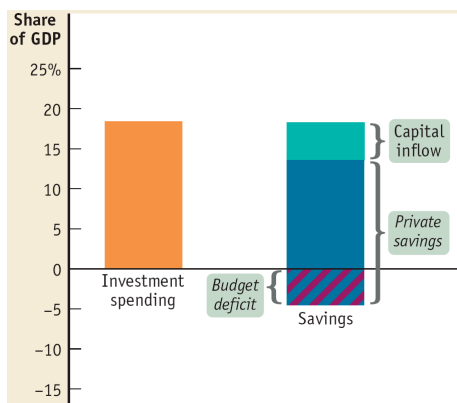
The Savings–Investment Spending Identity in an Open Economy

$$I = S_{\text{Private}} + S_{\text{Government}} + (IM - X) = NS + KI$$

Investment spending = National savings + Capital inflow in an open economy

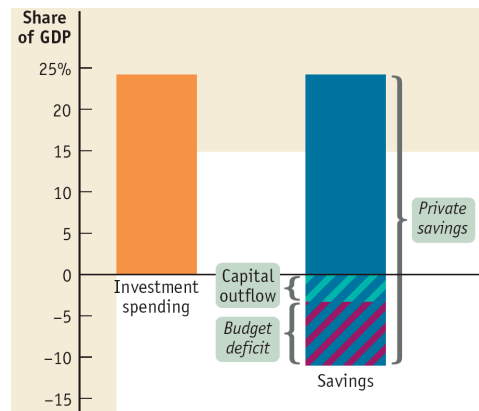
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The Savings–Investment Spending Identity in



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The Savings–Investment Spending Identity in



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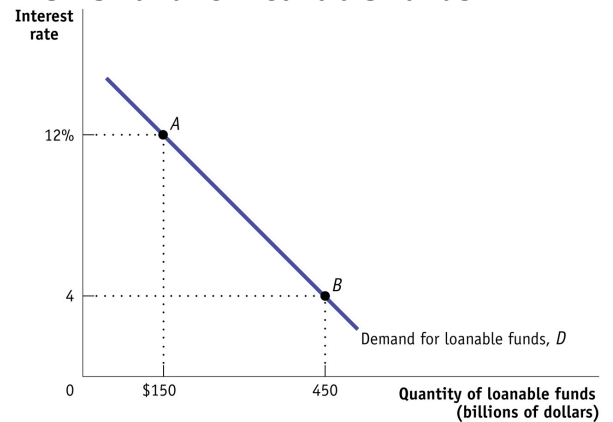
The Market for Loanable Funds

➤ The **loanable funds market** is a hypothetical market that examines the market outcome of the demand for funds generated by borrowers and the supply of funds provided by lenders.

➤ The **interest rate** is the price, calculated as a percentage of the amount borrowed, charged by the lender to a borrower for the use of their savings for one year.

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The Demand for Loanable Funds



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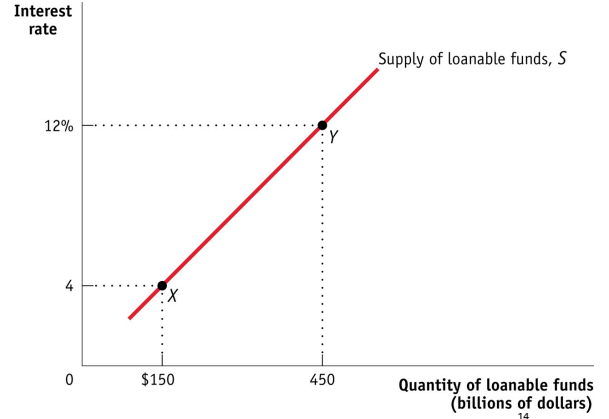
The Market for Loanable Funds

The **rate of return** of a project is the profit earned on the project expressed as a percentage of its cost.

$$\text{Rate of return} = \frac{(\text{Revenue from project} - \text{Cost of project})}{\text{Cost of project}} \times 100$$

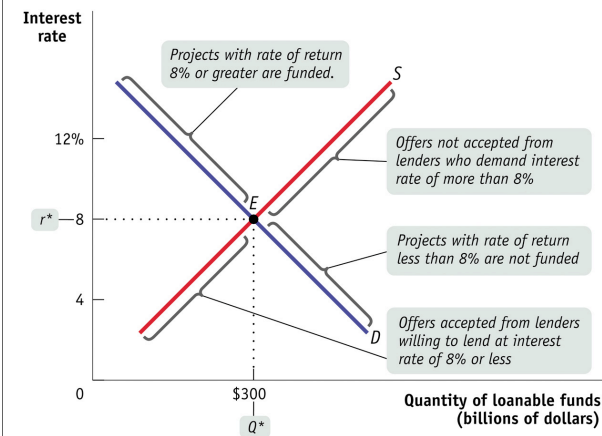
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The Supply for Loanable Funds



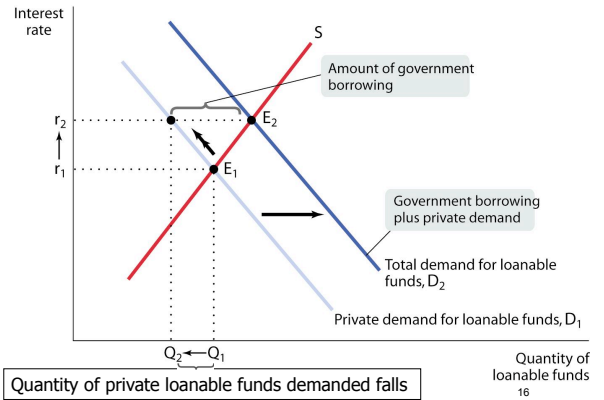
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Equilibrium in the Loanable Funds Market



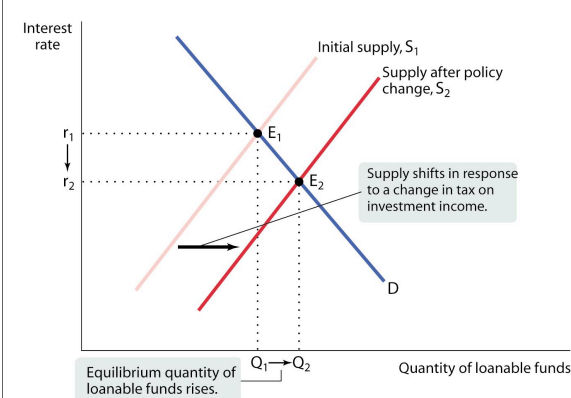
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Savings, Investment Spending, and Government Policy



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Increasing Private Savings



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The Financial System – Definitions

- A household's **wealth** is the value of its accumulated savings.
- A **financial asset** is a paper claim that entitles the buyer to future income from the seller.
- A **physical asset** is a claim on a tangible object that gives the owner the right to dispose of the object as he or she wishes.

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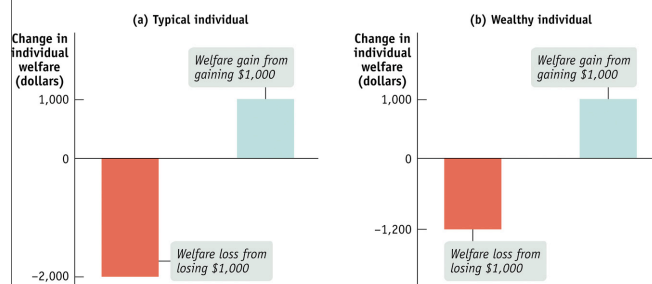
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The Financial System – Definitions

- A **liability** is a requirement to pay income in the future.
- **Transaction costs** are the expenses of negotiating and executing a deal.
- **Financial risk** is uncertainty about future outcomes that involve financial losses and gains.

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Risk-Averse Attitudes Toward Gain and Loss



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The Financial System – More Definitions

- An individual can engage in **diversification** by investing in several different things so that the possible losses are independent events.
- An asset is **liquid** if it can be quickly converted into cash.
- An asset is **illiquid** if it cannot be quickly converted into cash.

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The Financial System – More Definitions

- There are four main types of financial assets: **loans, bonds, stocks, and bank deposits.**
 - A **loan** is a lending agreement between a particular lender and a particular borrower.
 - A **bank deposit** is a claim on a bank that obliges the bank to give the depositor his or her cash when demanded.

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Three Tasks of a Financial System

- Reducing **transaction costs**—the cost of making a deal;
- Reducing **financial risk**—uncertainty about future outcomes that involves financial gains and losses;
- Providing **liquid** assets—assets that can be quickly converted into cash (in contrast to **illiquid** assets, which can't).

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Financial Intermediaries

- A **financial intermediary** is an institution that transforms the funds it gathers from many individuals into financial assets.
- A **mutual fund** is a financial intermediary that creates a stock portfolio and then resells shares of this portfolio to individual investors.
- A **pension fund** is a type of mutual fund that holds assets in order to provide retirement income to its members.

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Financial Intermediaries

➤ A **life insurance company** sells policies that guarantee a payment to a policyholder's beneficiaries when the policyholder dies.

➤ A **bank** is a financial intermediary that provides liquid assets in the form of bank deposits to lenders and uses those funds to finance the illiquid investments or investment spending needs of borrowers.

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An Example of a Diversified Mutual Fund

State Street Global Advisors, S&P 500 Index Fund, Top Holdings
(as of March 31, 2005)

Company	Percent of mutual fund assets invested in company
General Electric	3.53
Exxon Mobil	3.52
Microsoft	2.26
Citigroup	2.17
Johnson & Johnson	1.85
Pfizer	1.81
Bank of America	1.65
Wal-Mart Stores	1.57
IBM	1.38
Intel	1.34

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Financial Fluctuations

Financial market fluctuations can be a source of macroeconomic instability.

The demand for stocks:

➤ Stock prices are determined by supply and demand as well as the desirability of competing assets, like bonds: when the interest rate rises, stock prices generally fall and vice versa.

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Financial Fluctuations

Financial market fluctuations can be a source of macroeconomic instability.

Stock market expectations:

➤ Expectations drive the supply of and demand for stocks: expectations of higher future prices push today's stock prices higher and expectations of lower future prices drive them lower.

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Financial Fluctuations

▪ One view of how expectations are formed is the **efficient markets hypothesis**, which holds that the prices of financial assets embody all publicly available information.

▪ It implies that fluctuations are inherently unpredictable—they follow a **random walk**.

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Irrational Markets?

▪ Many market participants and economists believe that, based on actual evidence, financial markets are not as **rational** as the efficient markets hypothesis claims.

▪ Such evidence includes the fact that stock price fluctuations are too great to be driven by fundamentals alone.

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Stock Prices and Macroeconomics

>How do macroeconomists and policy makers deal with the fact that stock prices fluctuate a lot and that these fluctuations can have important economic effects?

>The short answer is that, for the most part, they adopt **an open-minded but watchful** attitude.

>Policy makers assume neither that markets always behave rationally nor that they can outsmart them.

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The End of Chapter 9

coming attraction:
Chapter 10:
Aggregate Supply and
Aggregate Demand

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