Chapter 23: Finance, Saving, and Investment

Financial Markets

Saving is the source of the funds that are used to finance investment.

These funds are supplied and demanded in three types of financial markets:

- Loan markets

- Bond markets

A **bond** is a promise to make specified payments on specified dates.

- Stock markets

A **stock** is a certificate of ownership and claim to the firm's profits.

A **stock market** is a financial market in which shares of stocks of corporations are traded.

Financial Institution

is a firm that operates on both sides of the markets for financial capital. It is a borrower in one market and a lender in another.

- Banks
- Trust and Loan Companies
- Credit Unions and Caisses Populaires
- Pension Funds
- Insurance Companies

The Loanable Funds Market

The **market for loanable funds** is the aggregate of all the individual financial markets.

Funds come from three sources:

1. Household saving, S
2. Government budget surplus, $(T - G)$
3. Borrowing from the rest of the world, $(M - X)$

National Saving is the sum of S and $(T - G)$.

The **nominal interest rate** is the number of dollars that a borrower pays and a lender receives in interest in a year expressed as a percentage of the number of dollars borrowed and lent.

For example, if the annual interest paid on a $500 loan is $25, the nominal interest rate is 5 percent per year.

The **real interest rate** is the nominal interest rate adjusted to remove the effects of inflation on the buying power of money.

real interest rate ≈ (nominal interest rate - inflation rate)

For example, if the nominal interest rate is 5 percent a year and the inflation rate is 2 percent a year, the real interest rate is 3 percent a year.

The real interest rate is the opportunity cost of borrowing.

The Demand for Loanable Funds

The quantity of loanable funds demanded is the total quantity of funds demanded to finance (1) investment, (2) the government budget deficit, and (3) international investment and lending during a given period.

What determines investment and the demand for loanable funds to finance it?

The *quantity of loanable funds demanded* depends on

1. The real interest rate

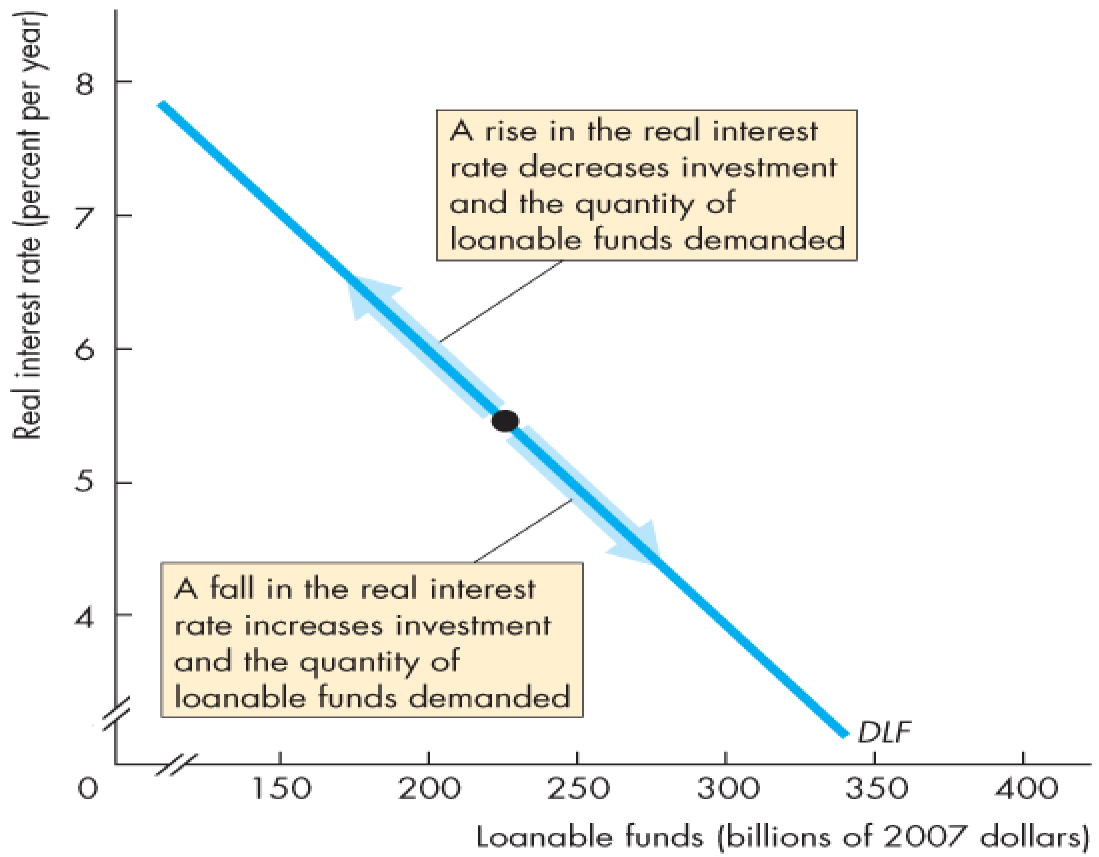
2. Expected profit

The Demand for Loanable Funds Curve

The demand for loanable funds is the relationship between the quantity of loanable funds demanded and the real interest rate *when all other influences on borrowing plans remain the same*.

Business investment is the main item that makes up the demand for loanable funds.

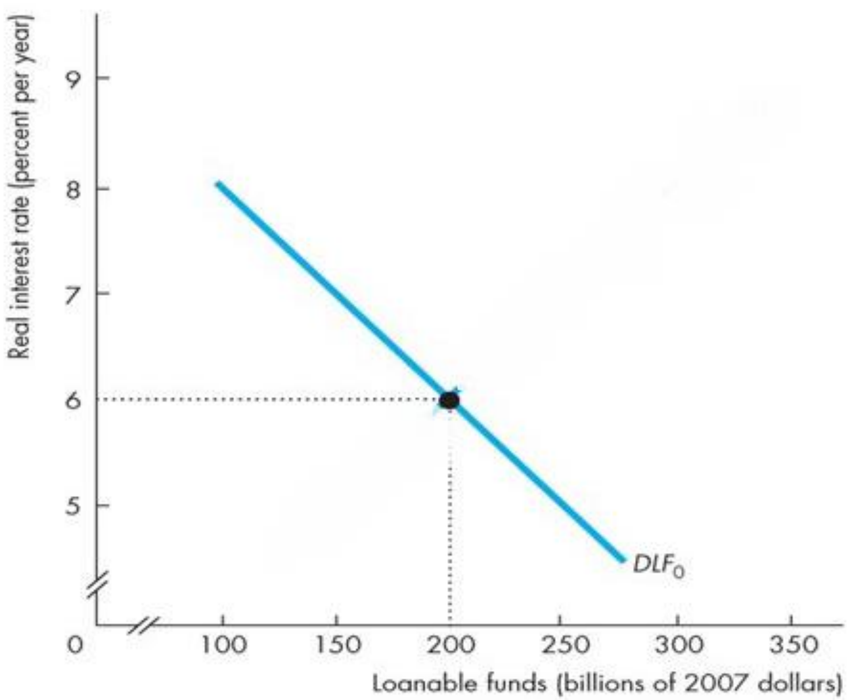
A <u>change in quantity demanded</u> is movement along the curve …



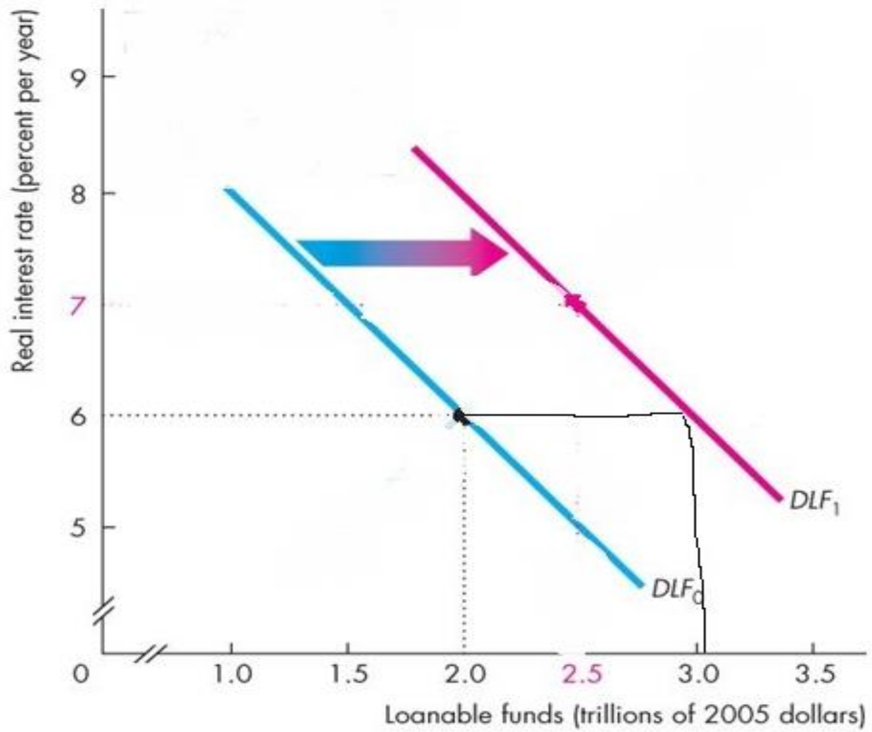
Changes in the Demand for Loanable Funds

When the expected profit changes, the demand for loanable funds changes.

Other things remaining the same, the greater the expected profit from new capital, the greater is the amount of investment and the greater the demand for loanable funds (shift in the curve).



(a) An increase in demand



(a) An increase in demand

A <u>change in demand</u> refers to a shift in the whole curve.

The Supply of Loanable Funds

The quantity of loanable funds supplies is the total funds available from private saving, the government budget surplus, and international borrowing during a given period.

For now, let us focus on **private saving**.

How do you decide how much of your income to save and supply in the loanable funds market?

The *quantity of loanable funds supplied* depends on

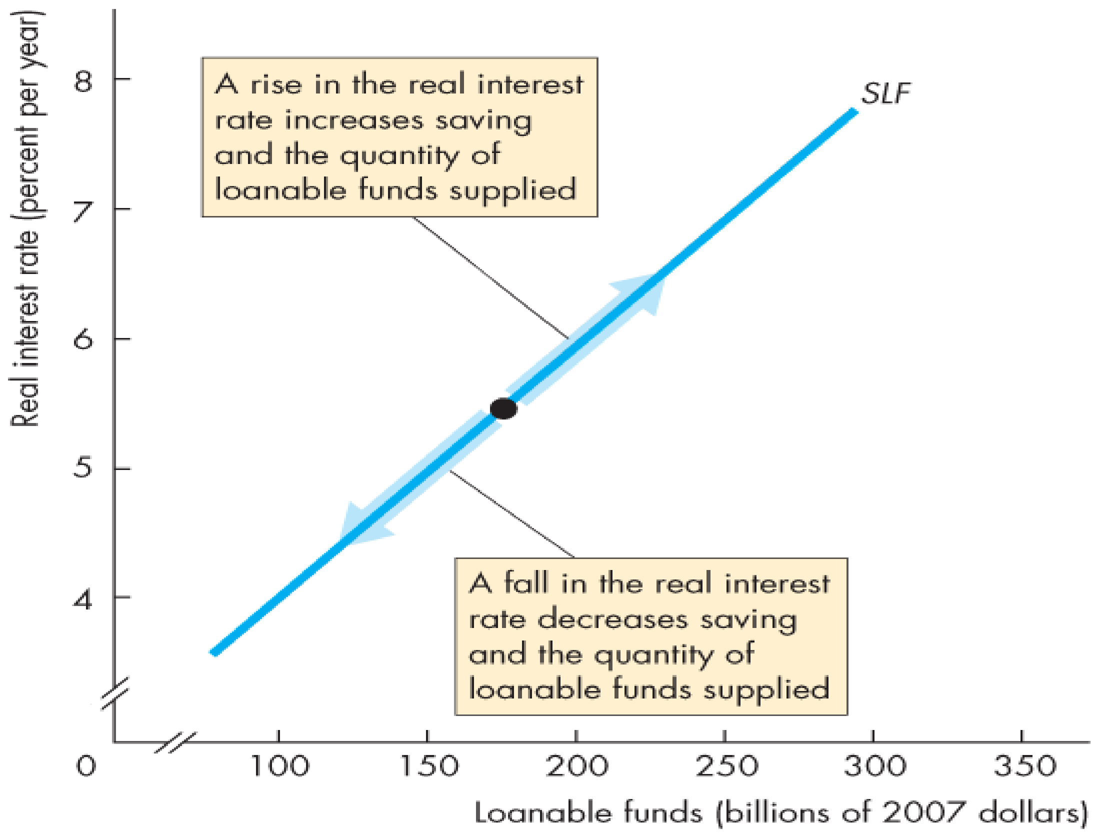
1. The real interest rate
2. Disposable income
3. Expected future income
4. Wealth
5. Default risk

The Supply of Loanable Funds Curve

The supply of loanable funds is the relationship between the quantity of loanable funds supplied and the real interest rate when all other influences on lending plans remain the same.

Saving is the main item that makes up the supply of loanable funds.

Interest rates as a reward for saving.



Changes in the Supply of Loanable Funds

A change in disposable income, expected future income, wealth, or default risk changes the supply of loanable funds (shift in the curve).

An increase in disposable income,
increases saving and increases the supply of loanable funds.

The higher a household's expected future income,
the smaller its saving today and hence, decreases the supply of loanable funds.

The higher a household's wealth,
the smaller its saving and hence, decreases the supply of loanable funds.

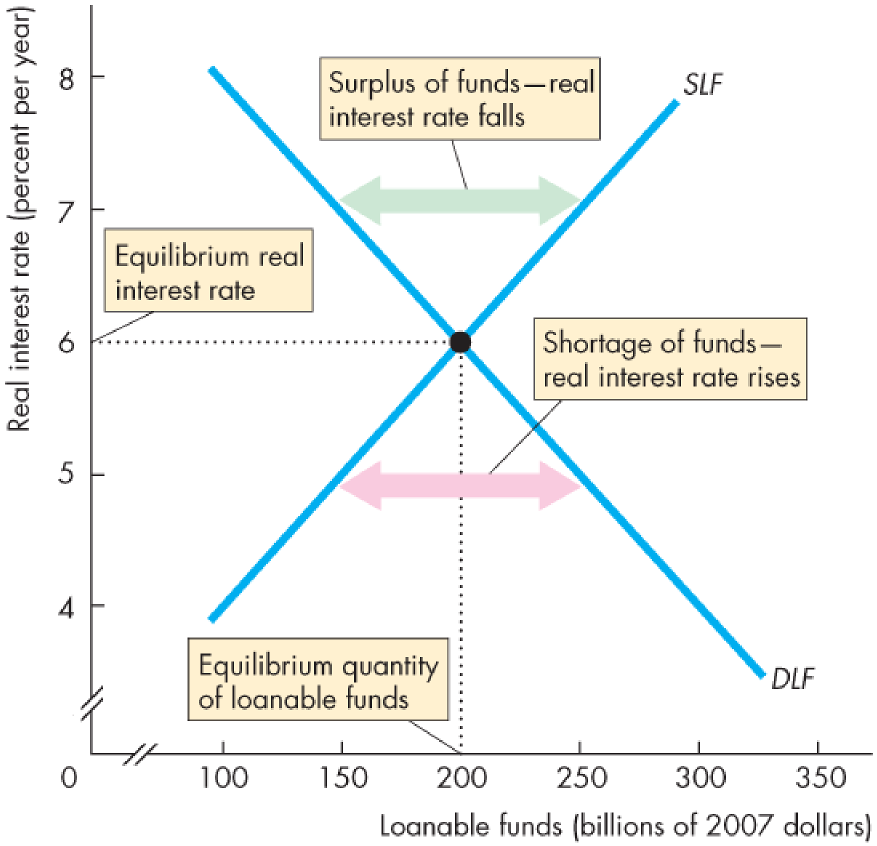
Default risk (the risk that a loan will not be repaid). The greater that risk,
the higher is the interest rate needed to induce a person to lend and the smaller is the supply of loanable funds.

All of the above shifts the supply curve.

Equilibrium in the Loanable Funds Market

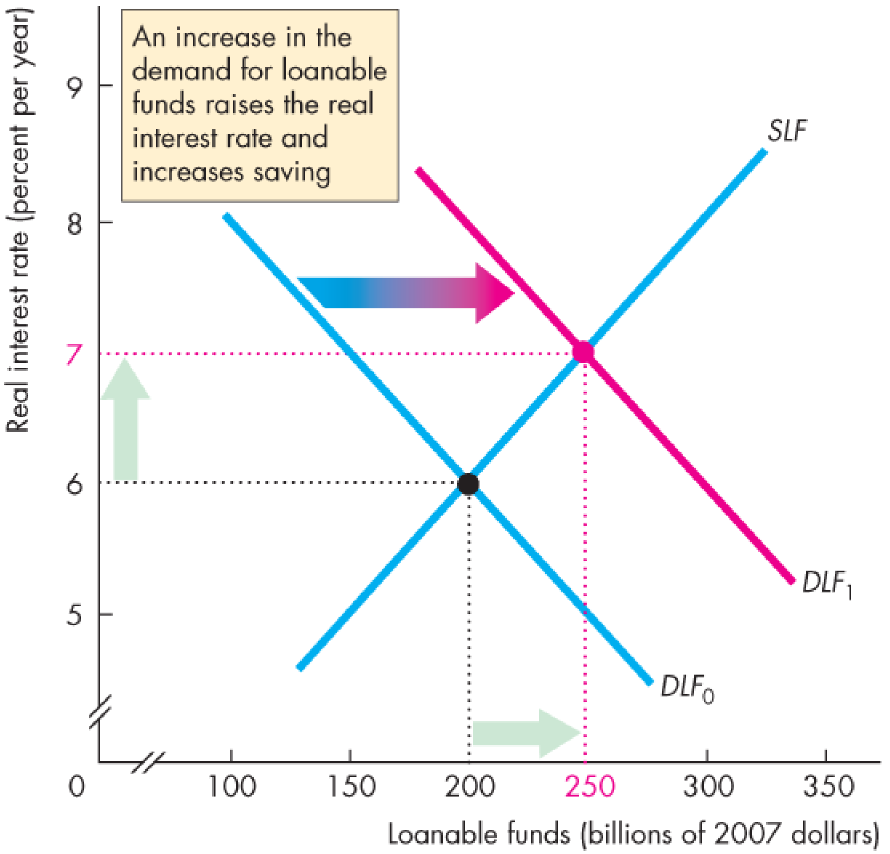
The loanable funds market is in equilibrium at the real interest rate at which the quantity of loanable funds demanded equals the quantity of loanable funds supplied.

- At 7 percent a year, there is a surplus of funds and the real interest rate falls.
- At 5 percent a year, there is a shortage of funds and the real interest rate rises.
- Equilibrium occurs at a real interest rate of 6 percent a year.



Changes in Demand

- An increase in expected profits increases the demand for funds today.
- The real interest rate rises.
- Saving and quantity of funds supplied increases.



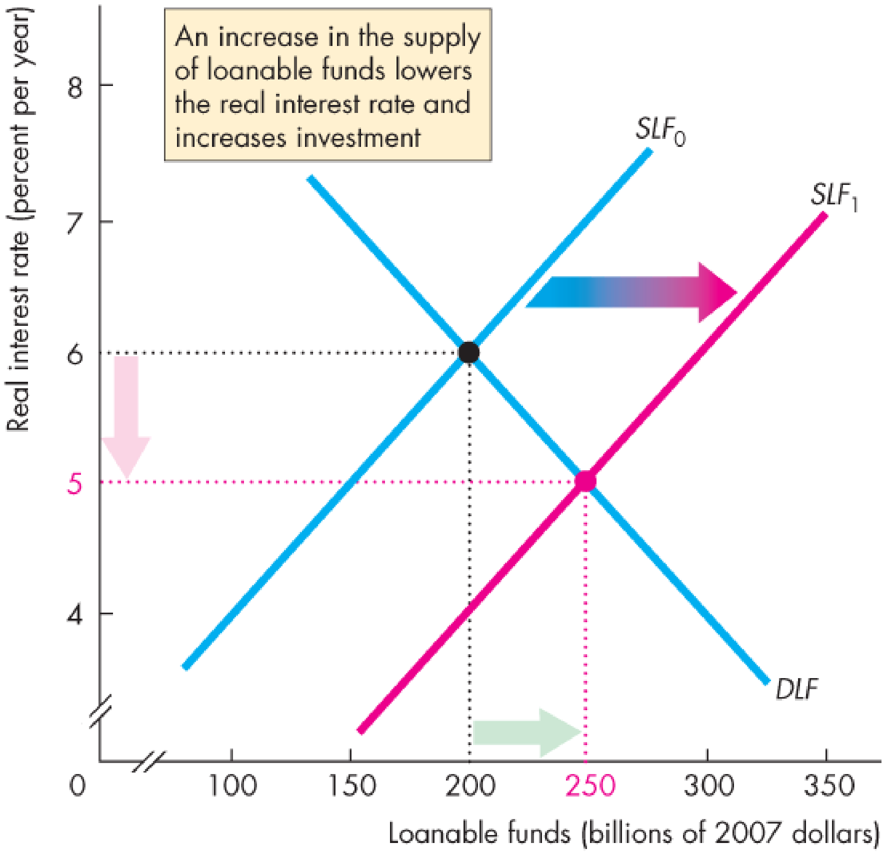
(a) An increase in demand

Changes in Supply

If one of the influences on saving plans changes and saving increases, the supply of funds increases.

The real interest rate falls.

Investment increases.



(b) An increase in supply

Government in the Loanable Funds Market

Government enters the loanable funds market when it has a budget surplus or deficit.

- A government budget surplus increases the supply of funds.
- A government budget deficit increases the demand for funds.

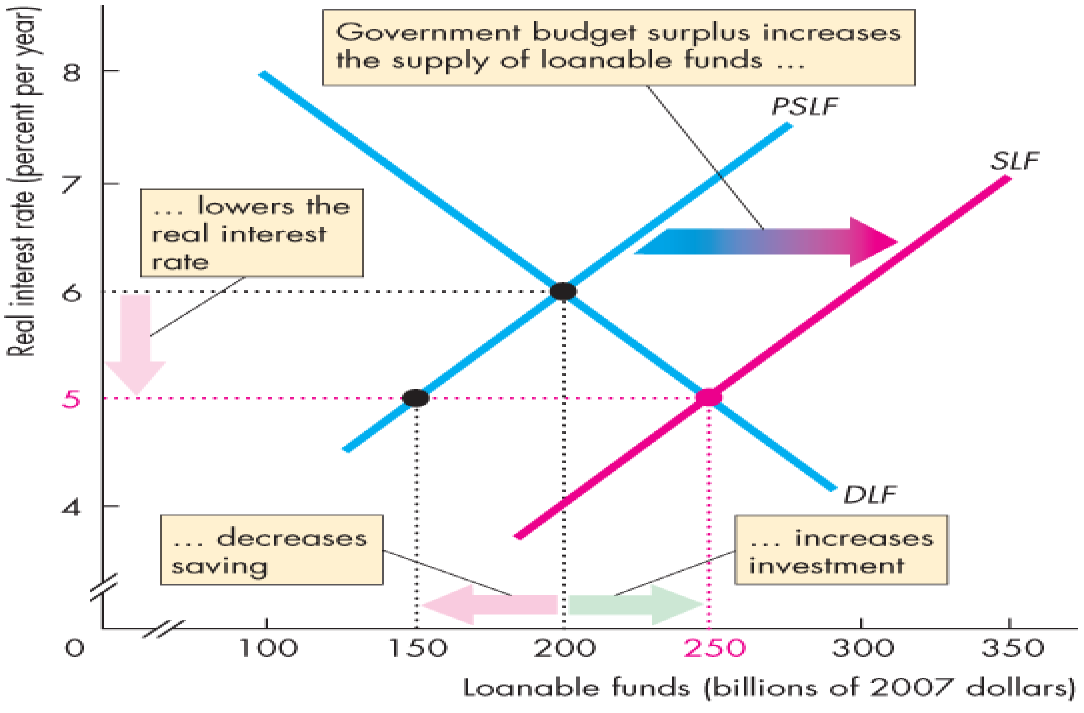
Effect of a government budget surplus

A government budget surplus increases the supply of funds.

The real interest rate falls.

Private saving decreases.

Investment increases.



Effect of a government budget deficit

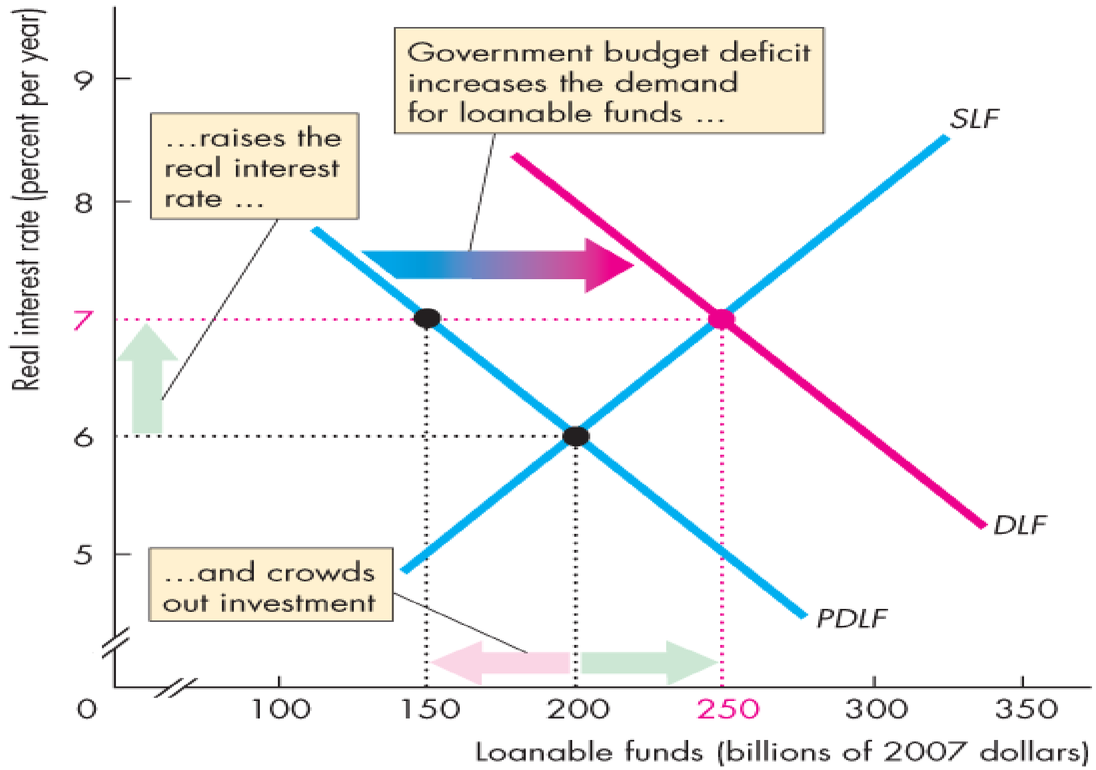
A government budget deficit increases the demand for funds.

The real interest rate rises.

Private saving increases.

Investment decreases—

is crowded out.



Special Case:

The Ricardo-Barro effect

A budget deficit increases the demand for funds.

Rational taxpayers increase saving, which increases the supply of funds.

Increased private saving finances the deficit.

Crowding-out is avoided.