

Loanable Funds Theory: Determination of equilibrium real interest rate

Always at potential.

Total supply of savings (supply of funds by private and public). Government probably irresponsible though.

Investment Demand (demand for funds for investment projects)

Slopes (Inelastic etc)

Dynamics

Burden of adjustment

Examples:

Crowding Out (Long-Run Effects?)

Private Savings Rise offsetting Government Savings fall.

Savings Glut

Financial Intermediation

Banks

Bonds (an IOU)

Stocks (Capital Gains and Dividends)

If firm has issued 100 shares and you own 1,
then you own 1% of firm

So far have assumed savers and borrowers meet in one market.

Lots of markets in reality.

Returns are generated in many ways.

Banks and Returns

Bonds and Returns

Buy a bond today that will pay off 100 next period

Cost of Bond is 80

Thus return is

$$r = \frac{100 - 80}{80} = \frac{20}{80} = 25\%$$

There is an important inverse relationship:

When bond prices rise, their return will fall.

E.g., suppose bond price rises to 90. Then return is

$$r = \frac{100 - 90}{90} = \frac{10}{90} \approx 11\%$$

Bond market provides good discipline:

If government is running deficits, the bond market will charge them higher interest rates.

Returns on Stocks

Suppose you buy a stock for 50. Next period the stock price rises to 60 and you get a dividend of 15.

$$r = \frac{15 + 10}{50} = 50\%$$

Cet par, higher price translates into lower returns.

Stock returns volatile; hence risky and, on average, pay more

Efficient Markets Hypothesis

Prices reflect all available information

Greenspan/Asian Markets

Prices adjust so you cant make “above normal” returns

Real Rate in Loanable Funds Model

Gives baseline real rate for economy (compensation for waiting)

Best viewed as a starting point for other rates.

Must add other premia too:

1. Inflation Premium (Fisher Effect): Almost all rates are nominal, not real.
2. Risk Premium (e.g., default); Irish bonds; Junk Bonds
3. Liquidity premium
4. Term premium/Yield Curve

Maths of Savings/Investment

Simple Case: Closed Economy, No Government

$$Y = C + I$$

$$Y = C + S_p$$

$$C + I = C + S \Rightarrow S_p = I$$

$$S_p = I$$

International and Government

$$Y = C + I + G + X - M$$

$$Y = C + S_p + T$$

Now equating both expressions for Y yields:

$$C + I + G + X - M = C + S_p + T$$

$$\Rightarrow I + G + NX = S_p + T$$

$$\Rightarrow S_p + (T - G) - NX = I$$

$$\Rightarrow \underbrace{S_p + S_g - NX}_{resources} = I$$

$$S_I = -NX$$

For example, the U.S. runs a current account deficit with China. For the goods it receives, the Chinese receive dollars. Then the Chinese use those dollars to invest in the U.S. Those dollars are called *international savings*, S_I , which increase funds for investment. Ultimately, the exchange is goods for assets.

$$\underbrace{S_p + S_g + S_I}_{resources} = I$$