

## **The Financial Environment: Markets, Institutions, and Interest Rates**

- Financial markets
- Types of financial institutions
- Determinants of interest rates
- Yield curves

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## **What is a market?**

- A market is a “place” where goods and services are exchanged.
- A financial market is a place where individuals and organizations wanting to borrow funds are brought together with those having a surplus of funds.

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## Financial Markets

- Financial markets bring together people and organizations wanting to borrow money with those having surplus funds.
- There are many different financial markets in a developed economy, each dealing with a different type of instrument, serving a different set of customers, or operating in a different part of the country.

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## Markets

- Physical assets vs. Financial assets
  - Physical asset markets (also called "tangible" or "real" asset markets) are the markets for such products as wheat, autos, real estate, computers, and machinery.
  - Financial asset markets deal with stocks, bonds, notes, mortgages, and other claims on real assets.

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## Markets

- Spot vs. Futures
  - Spot markets are markets in which assets are bought or sold for “on the spot” delivery
  - Futures markets are markets in which participants agree today to buy or sell an asset at a future date.

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## Markets

- Money vs. Capital
  - Money markets are the markets for short-term, highly liquid debt securities, those securities that mature in less than one year.
  - Capital markets are the markets for long-term debt and corporate stocks.

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## Markets

- Primary vs. Secondary
  - Primary markets are the markets in which corporations sell newly issued securities to raise capital.
  - Secondary markets are the markets in which existing (already outstanding) securities are traded among investors.

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## What is an Initial Public Offering (IPO) market?

**An IPO Market is a subset of the primary market. Firms “go public” by offering shares of their stock to the public for the first time.**

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## Markets

- Public vs. Private
  - Private markets are the markets where transactions are worked out directly between two parties.
  - Public markets are the markets where standardized contracts are traded on organized exchanges.

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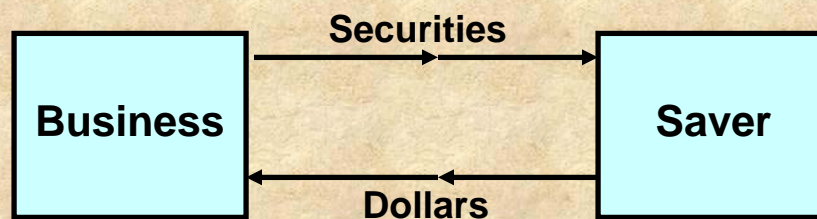
## Three Primary Ways Capital Is Transferred Between Savers and Borrowers

- Direct transfer
- Investment banking house
- Financial intermediary

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## Direct transfer

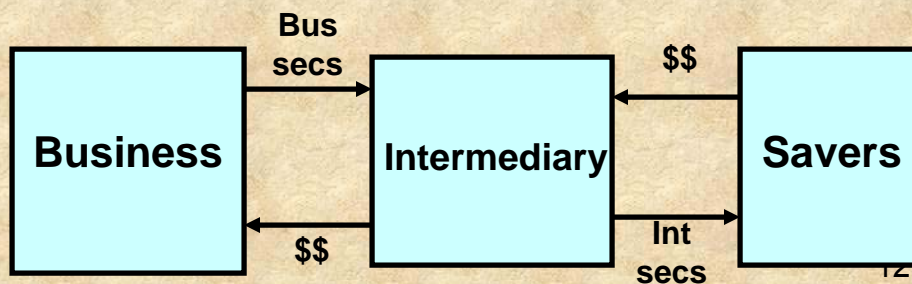
- Direct transfers of money and securities occur when a business sells its stocks or bonds directly to savers, without going through any type of financial institution.



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## Financial Intermediary

- Transfers through financial intermediaries occur when a bank or mutual fund obtains funds from savers, issues its own securities in exchange, and then uses these funds to purchase other securities.
- Intermediaries literally create new forms of capital. The existence of intermediaries greatly increases the efficiency of money and capital markets.



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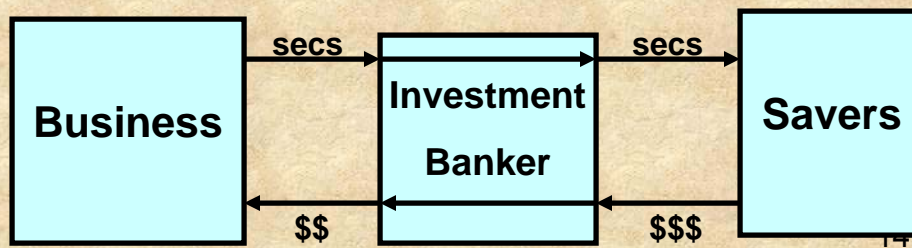
## Types of Financial Intermediaries

- Commercial banks
- Savings and loan associations
- Mutual savings banks
- Credit unions
- Pension funds
- Life insurance companies
- Mutual funds

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## Investment Bankers

- Transfers through an investment banking house occur when a brokerage firm, such as Merrill Lynch, serves as a middleman and facilitates the issuance of securities.
- These middlemen help corporations design securities that will be attractive to investors, buy these securities from the corporations, and then resell them to savers in the primary markets.



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## Stock Markets

- The stock market is one of the most important markets to financial managers because it is here that the price of each stock, and hence the value of all publicly-owned firms, is established. There are two basic types of stock markets.
  - The physical location exchanges, typified by the New York Stock Exchange (NYSE) and the American Stock Exchange (AMEX), are tangible, physical entities.
  - The electronic dealer markets include the Nasdaq stock market, the less formal over-the-counter market, and the recently developed electronic communications networks (ECNs).

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- What do we call the price, or cost, of **debt** capital?

The interest rate

- What do we call the price, or cost, of **equity** capital?

$$\text{Required return} = \text{Dividend yield} + \text{Capital gain}$$

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## What four factors affect the cost of money?

- Production opportunities
- Time preferences for consumption
- Risk
- Expected inflation

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## “Real” Versus “Nominal” Rates

$k^*$  = **Real** risk-free rate.  
T-bond rate if no inflation;  
1% to 4%.

$k$  = Any **nominal (quoted)** rate.

$k_{RF}$  = Rate on Treasury securities.

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$$k = k^* + IP + DRP + LP + MRP.$$

Here:

$k$  = required rate of return on a debt security.

$k^*$  = real risk-free rate.

$IP$  = inflation premium.

$DRP$  = default risk premium.

$LP$  = liquidity premium.

$MRP$  = maturity risk premium.

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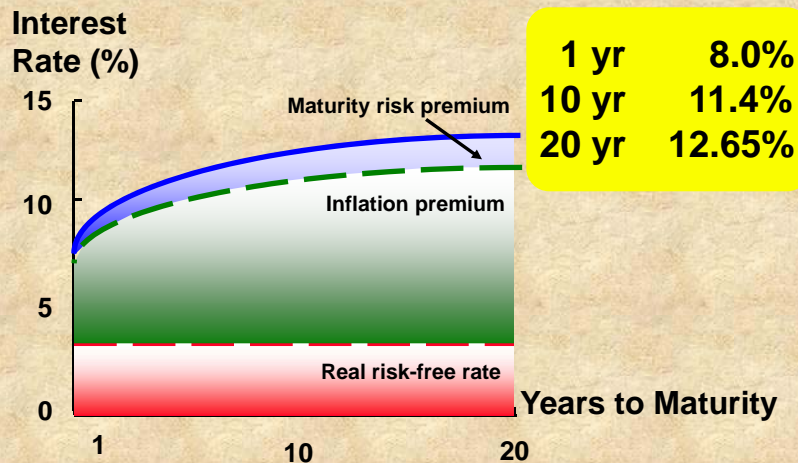
## Yield Curve

The term structure of interest rates describes the relationship between long- and short-term interest rates.

The yield curve is the graph of interest rates for similar risk securities for different maturities.

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## Hypothetical Treasury Yield Curve



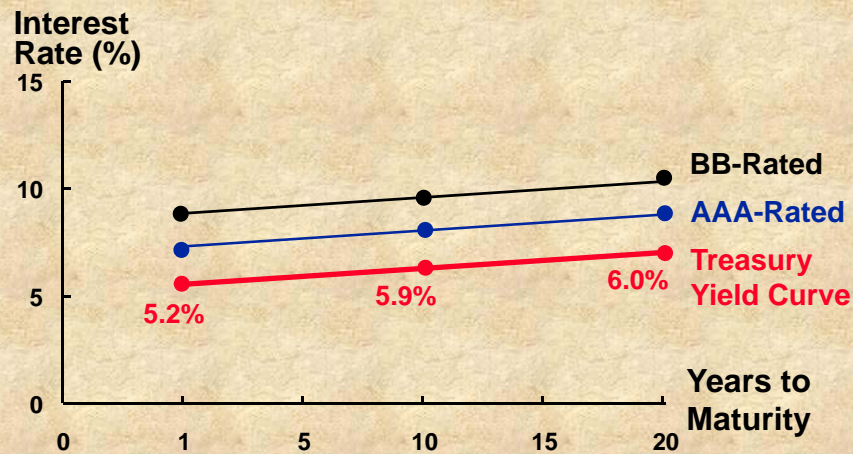
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## What kind of relationship exists between the Treasury yield curve and the yield curves for corporate issues?

- Corporate yield curves are higher than that of the Treasury bond. However, corporate yield curves are not necessarily parallel to the Treasury curve.
- The spread between a corporate yield curve and the Treasury curve widens as the corporate bond rating decreases.

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## Hypothetical Treasury and Corporate Yield Curves



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## Pure Expectations Hypothesis

- The PEH contends that the shape of the yield curve depends on investor's expectations about future interest rates.
- If interest rates are expected to increase, L-T rates will be higher than S-T rates, and vice-versa. Thus, the yield curve can slope up, down, or even bow.

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## Assumptions of the PEH

- Assumes that the maturity risk premium for Treasury securities is zero.
- Long-term rates are an average of current and future short-term rates.
- If PEH is correct, you can use the yield curve to “back out” expected future interest rates.

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## Conclusions about PEH

- Some would argue that the MRP  $\neq 0$ , and hence the PEH is incorrect.
- Most evidence supports the general view that lenders prefer S-T securities, and view L-T securities as riskier.
- Thus, investors demand a MRP to get them to hold L-T securities (i.e., MRP  $> 0$ ).

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## **Other factors that influence interest rate levels**

- Federal reserve policy
- Federal budget surplus or deficit
- Level of business activity
- International factors

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## **Risks associated with investing overseas**

- Exchange rate risk – If an investment is denominated in a currency other than U.S. dollars, the investment's value will depend on what happens to exchange rates.
- Country risk – Arises from investing or doing business in a particular country and depends on the country's economic, political, and social environment.

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## **Factors that cause exchange rates to fluctuate**

- Changes in relative inflation
- Changes in country risk