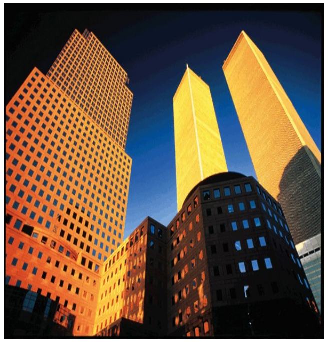
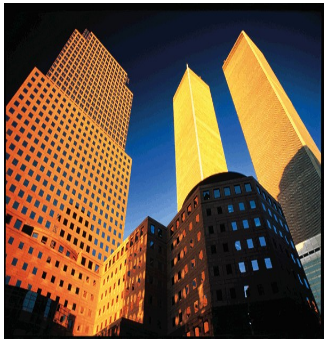


Chapter 2

The Business, Tax, and Financial Environments

Fundamentals of Financial Management, 11/e
Created by: Gregory A. Kuhlemeyer, Ph.D.
Carroll College, Waukesha, WI

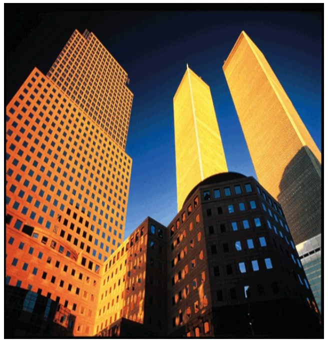


The Business, Tax, and Financial Environments

The Business Environment

The Tax Environment

The Financial Environment



The Business Environment

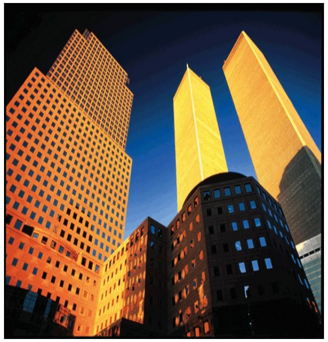
The U.S. has four basic forms of business organization:

Sole Proprietorships

Partnerships (general and limited)

Corporations

Limited liability companies

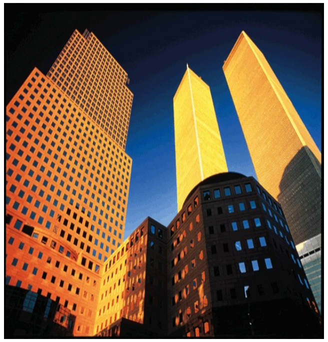


The Business Environment

Sole Proprietorship -- A business form for which there is one owner. This single owner has unlimited liability for all debts of the firm.

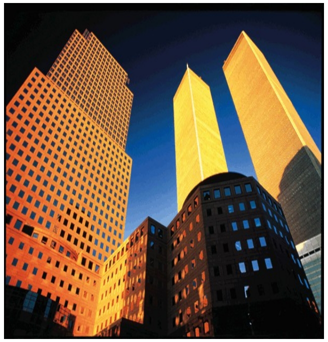
Oldest form of business organization.

Business income is accounted for on the owner's *personal income tax form*.



Summary for Sole Proprietorship

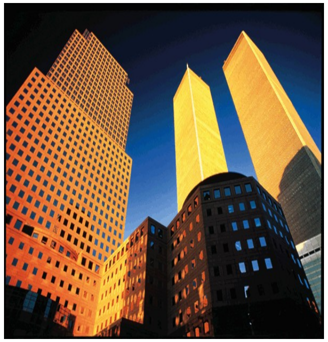
Advantages	Disadvantages
Simplicity	Unlimited liability
Low setup cost	Hard to raise additional capital
Quick setup	Transfer of ownership difficulties
Single tax filing on individual form	



The Business Environment

Partnership -- A business form in which two or more individuals act as owners.

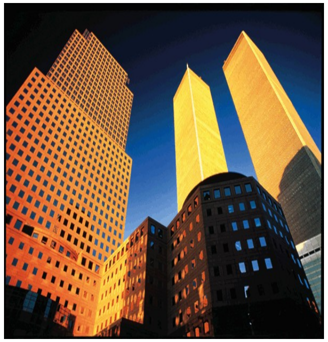
Business income is accounted for on each partner's ***personal income tax form***.



Types of Partnerships

General Partnership -- All partners have *unlimited liability* and are liable for all obligations of the partnership.

Limited Partnership -- Limited partners have *liability limited* to their capital contribution (investors only). At least one general partner is required and all general partners have unlimited liability.



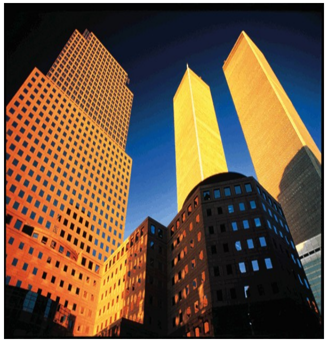
Summary for Partnership

Advantages

- Can be simple
- Low setup cost, higher than sole proprietorship
- Relatively quick setup
- Limited liability for limited partners

Disadvantages

- Unlimited liability for the general partner
- Difficult to raise additional capital, but easier than sole proprietorship
- Transfer of ownership difficulties

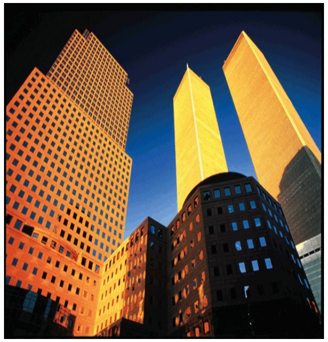


The Business Environment

Corporation -- A business form legally separate from its owners.

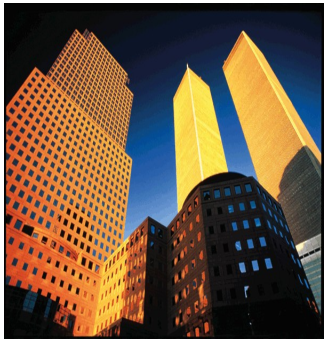
An artificial entity that can own assets and incur liabilities.

Business income is accounted for on the *income tax form of the corporation*.



Summary for Corporation

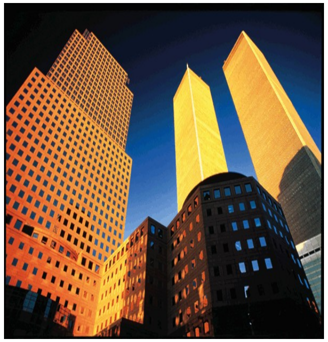
Advantages	**Disadvantages**
Limited liability	Double taxation
Easy transfer of ownership	More difficult to establish
Unlimited life	More expensive to set up and maintain
Easier to raise large quantities of capital	



The Business Environment

Limited Liability Companies -- A business form that provides its owners (called "members") with corporate-style limited personal liability and the federal-tax treatment of a partnership.

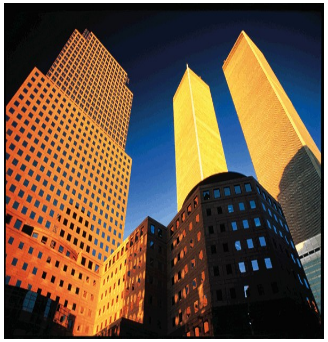
Business income is accounted for on each "member's" ***individual income tax form***.



Limited Liability Company (LLC)

Generally, an LLC will possess only the first two of the following four standard corporation characteristics

- Limited liability
- Centralized management
- Unlimited life
- Transfer of ownership without other owners' prior consent



Summary for LLC

Advantages

Limited liability

Eliminates double taxation

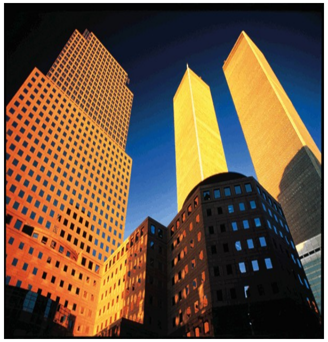
No restriction on number or type of owners

Easier to raise additional capital

Disadvantages

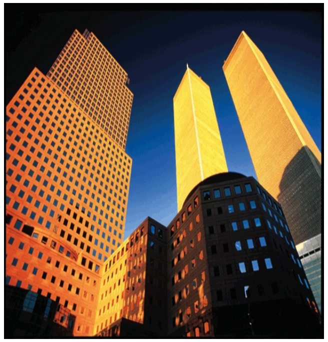
Limited life (generally)

Transfer of ownership difficulties (generally)



Corporate Income Taxes

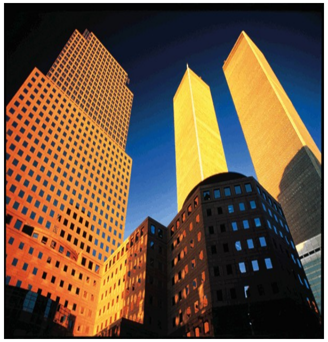
Corp. Taxable Income		Tax	
At Least	But <	Rate	Tax Calculation
$ 0	$ 50,000	15%	.15x(Inc > 0)
50,000	75,000	25%	$ 7,500 + .25x(Inc > 50,000)
75,000	100,000	34%	13,750 + .34x(Inc > 75,000)
100,000	335,000	39%	*22,250* + .39x(Inc > 100,000)
335,000	10,000,000	34%	113,900 + .34x(Inc > 335,000)
10,000,000	15,000,000	35%	3,400,000 + .35x(Inc > 10,000,000)
15,000,000	18,333,333	38%	5,150,000 + .38x(Inc > 15,000,000)
18,333,333		35%	6,416,667 + .35x(Inc > 18,333,333)



Income Tax Example

Lisa Miller of *Basket Wonders (BW)* is calculating the ***income tax liability***, ***marginal tax rate***, and ***average tax rate*** for the fiscal year ending December 31.

BW's corporate taxable income for this fiscal year was $250,000.



Income Tax Example

Income tax liability

= $22,250 + .39 x ($250,000 - $100,000)

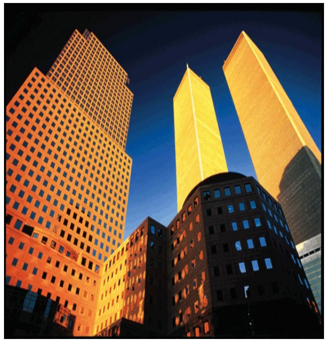
= $22,250 + $58,500

= $80,750

Marginal tax rate = 39%

Average tax rate = $80,750 / $250,000

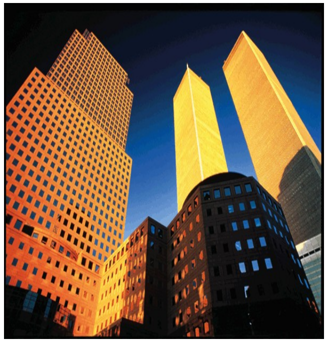
= 32.3%



Depreciation

Depreciation represents the systematic allocation of the cost of a capital asset over a period of time for financial reporting purposes, tax purposes, or both.

Generally, profitable firms prefer to use an accelerated method for tax reporting purposes.

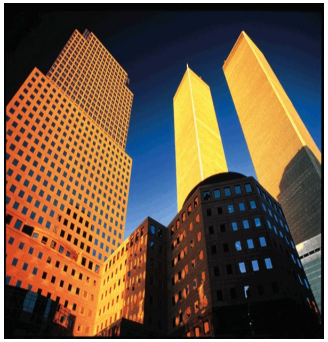


Common Types of Depreciation

Straight-line (*SL*)

Accelerated Types

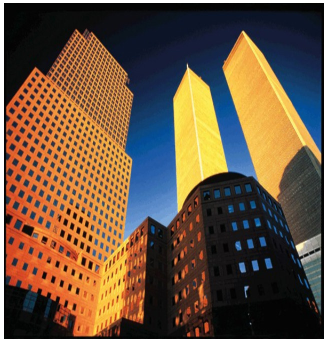
- Double-Declining-Balance (*DDB*)
- Modified Accelerated Cost Recovery System (*MACRS*)



Depreciation Example

Lisa Miller of *Basket Wonders (BW)* is calculating the depreciation on a machine with a depreciable basis of $100,000, a 6-year useful life, and a 5-year property class life.

She calculates the annual depreciation charges using MACRS.

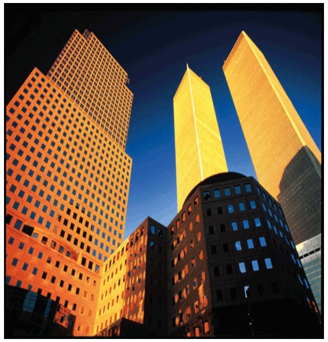


MACRS Example

Assets are depreciated based on one of eight different property classes.

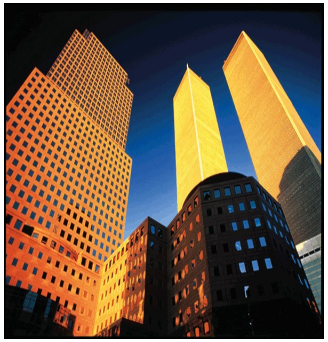
Generally, the half-year convention is used.

Depreciation in any particular year is the maximum of DDB or straight-line. A switch in depreciation methods is made from DDB to SL during the life of the asset.



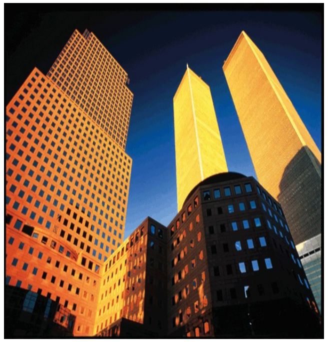
MACRS Example

Year	Depreciation Calculation	Depreciation Charge	Net Book Value
0	---	---	$100,000
1	.5X2X(1/5) X $100,000	$ 20,000	80,000
2	2 X (1 / 5) X $80,000	32,000	48,000
3	2 X (1 / 5) X $48,000	19,200	28,800
4	$28,800 / 2.5 Years	11,520	17,280
5	$28,800 / 2.5 Years	11,520	5,760
6	$28,800 / 2.5 Yrs X .5	5,760	0



MACRS Schedule

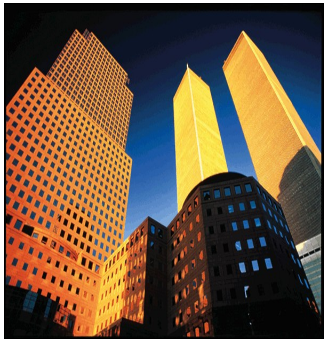
Recovery Year	Property Class		
	3-Year	5-Year	7-Year
1	33.33%	20.00%	14.29%
2	44.45	32.00	24.49
3	14.81	19.20	17.49
4	7.41	11.52	12.49
5		11.52	8.93
6		5.76	8.92
7			8.93
8			4.46



Other Tax Issues

Alternative Minimum Tax is a special tax which equals 20% of alternative minimum taxable income (generally not equal to taxable income). Corporations pay the maximum of AMT or regular tax liability.

Quarterly Tax Payments require corporations to pay 25% of their estimated annual tax liability on the 15th of April, June, September, and December.



Interest Deductibility

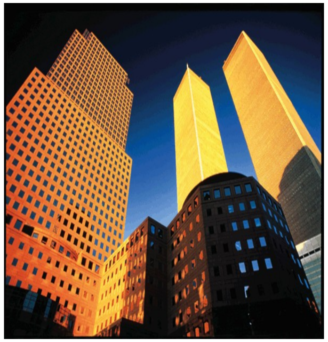
Interest Expense is the interest paid on outstanding debt and is ***tax deductible***.

Cash Dividend is the cash distribution of earnings to shareholders and is *not* a tax deductible expense.

The **after-tax cost of debt** is:

(Interest Expense) X (1 - Tax Rate)

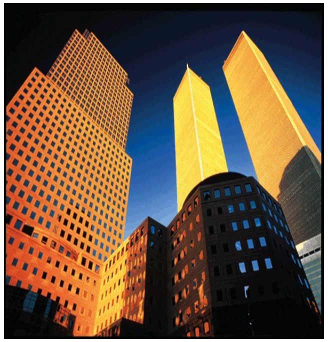
Thus, debt financing has a tax advantage!



Handling Corporate Losses and Gains

Corporations that sustain a net operating loss can carry that loss back (*Carryback*) 2 years and forward (*Carryforward*) 20 years to offset operating gains in those years.

Losses are generally carried back first and then forward starting with the earliest year with operating gains.

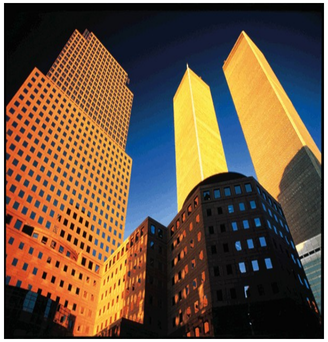


Corporate Losses and Gains Example

Lisa Miller is examining the impact of an operating loss at *Basket Wonders (BW)* in 2003. The following time line shows operating income and losses.

What impact does the 2003 loss have on *BW*?

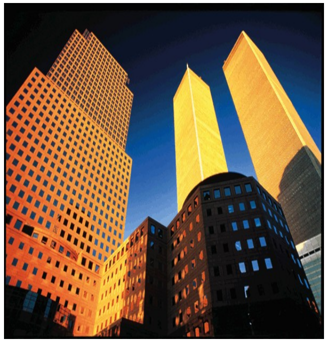
2000	2001	2002	2003
$150,000	$150,000	$100,000	-$500,000



Corporate Losses and Gains Example

The loss can offset the gain in each of the years 2001 and 2002. The remaining $250,000 can be carried forward to 2004 or beyond.

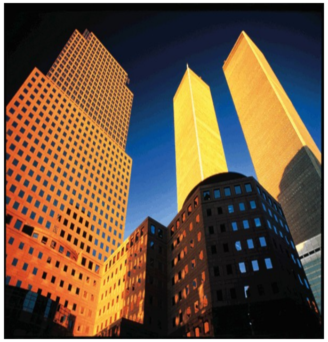
2000	2001	2002	2003
$150,000	$150,000	$100,000	-$500,000
	-$150,000	-$100,000	$250,000
$150,000	0	0	-$250,000



Corporate Capital Gains / Losses

Generally, the sale of a “capital asset” (as defined by the IRS) generates a **capital gain** (asset sells for more than original cost) or **capital loss** (asset sells for less than original cost).

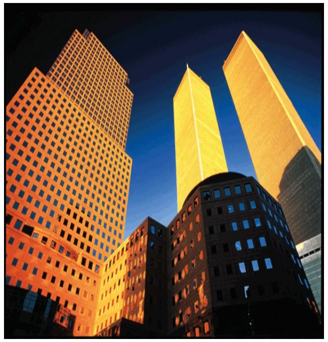
Often historically, capital gains income has received more favorable U.S. tax treatment than operating income.



Corporate Capital Gains / Losses

Currently, **capital gains** are taxed at ordinary income tax rates for corporations, or a maximum 35%.

Capital losses are deductible only against **capital gains**.

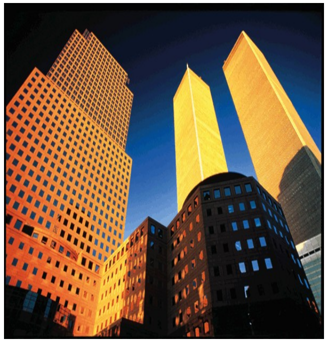


Personal Income Taxes

The U.S. has a **progressive tax structure** with four tax brackets of 15%, 28%, 31%, and 36%.

A **10% surtax** is applied to certain high income individuals raising their marginal rate to 39.6%.

Personal income taxes are determined by taxable income, filing status, and various credits.

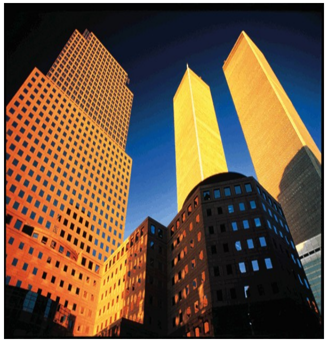


Financial Environment

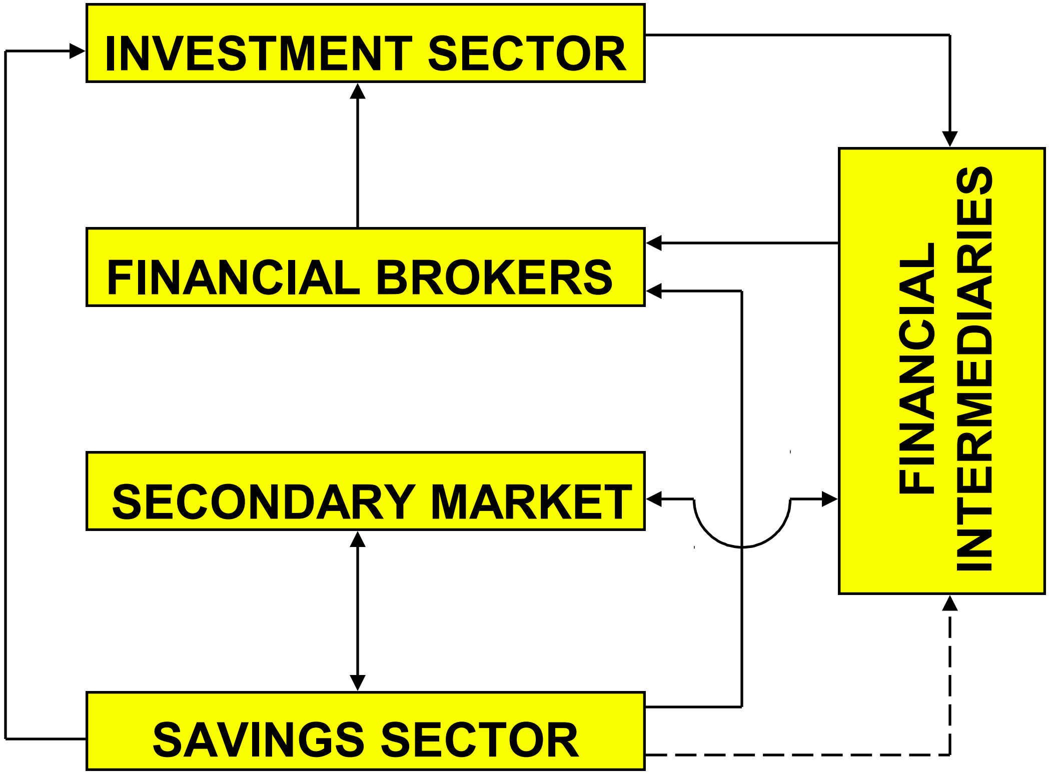
Businesses interact continually with the **financial markets.**

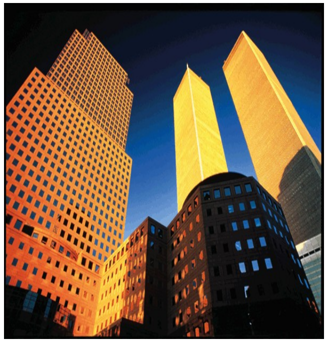
Financial Markets are composed of all institutions and procedures for bringing buyers and sellers of financial instruments together.

The purpose of financial markets is to efficiently allocate savings to ultimate users.

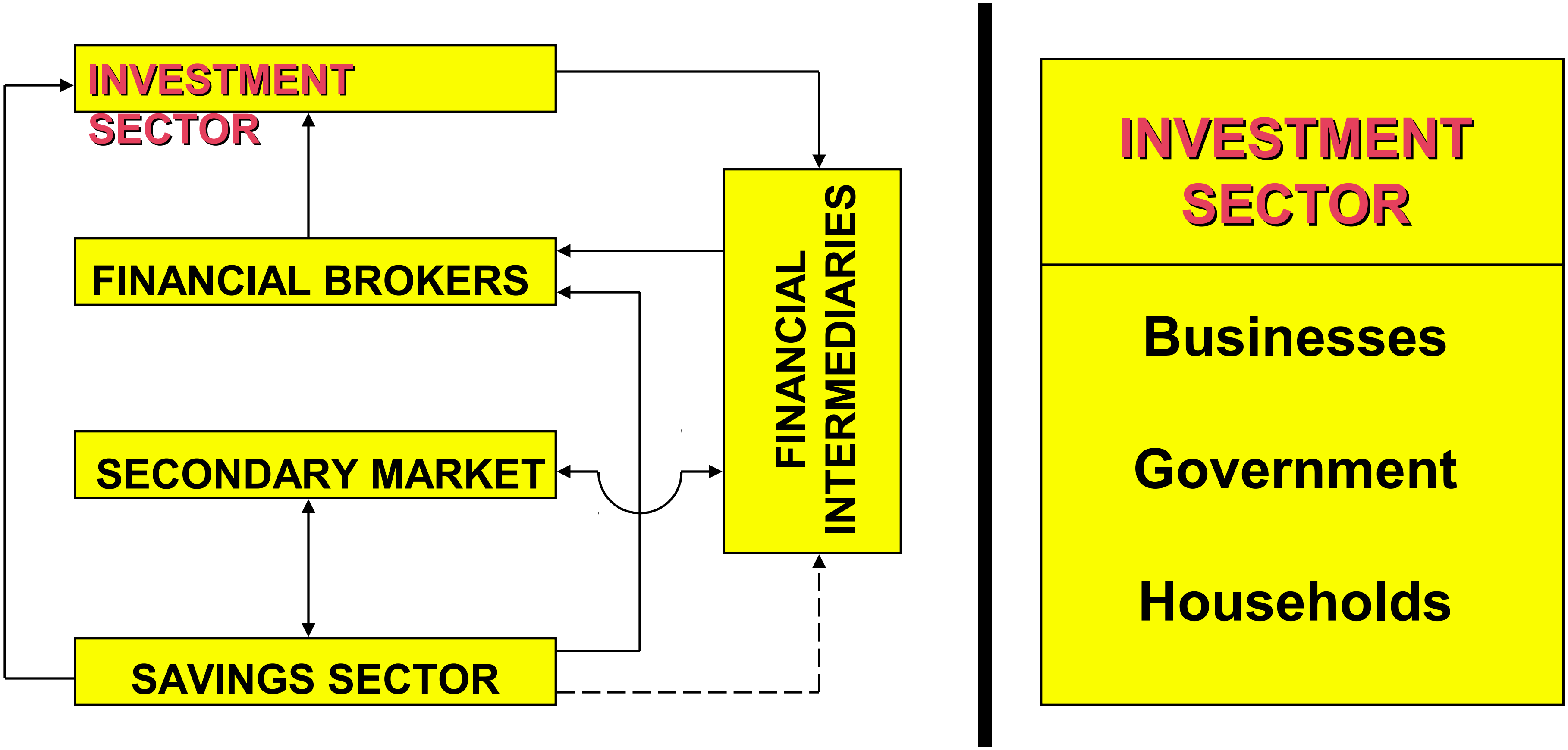


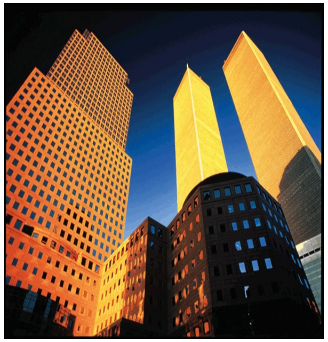
Flow of Funds in the Economy



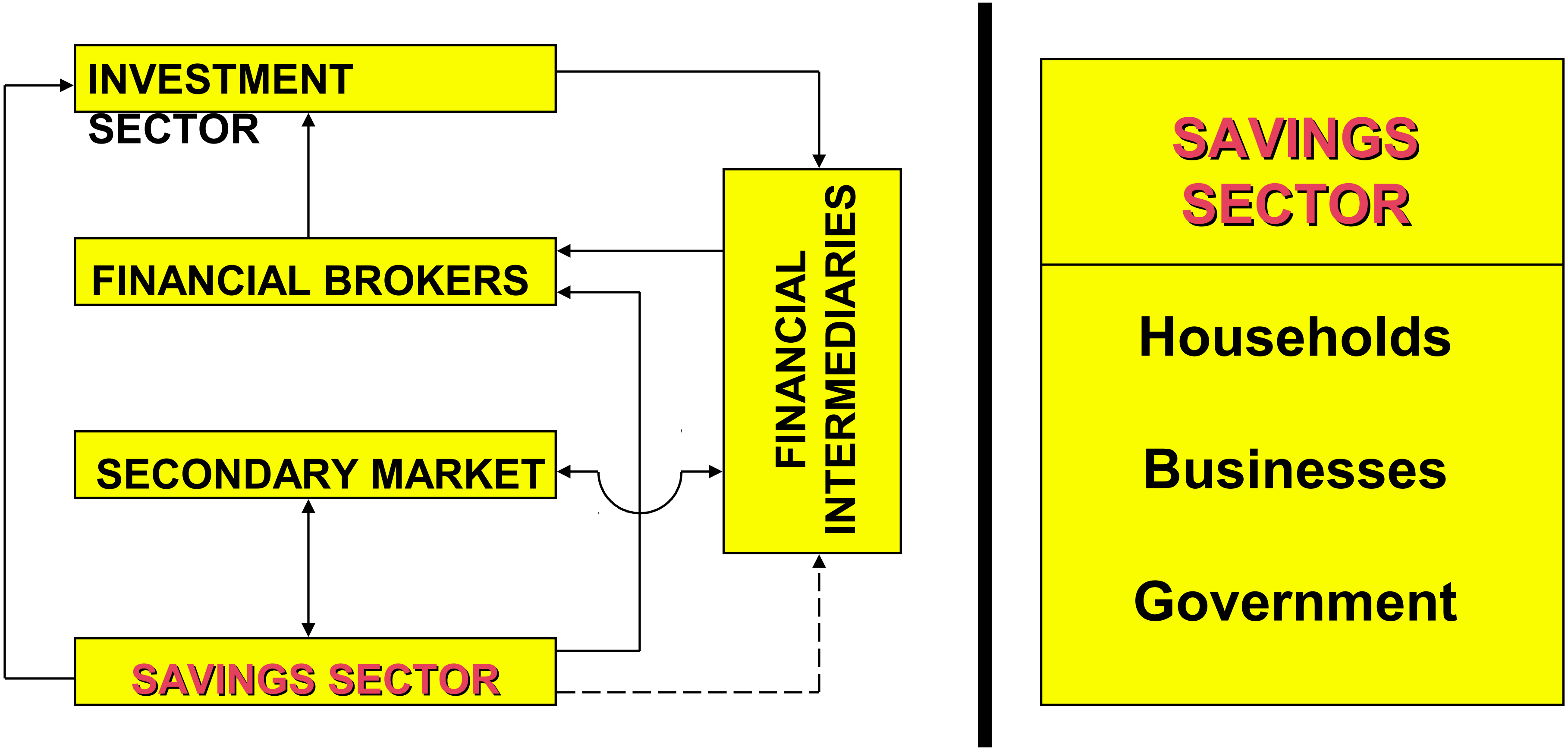


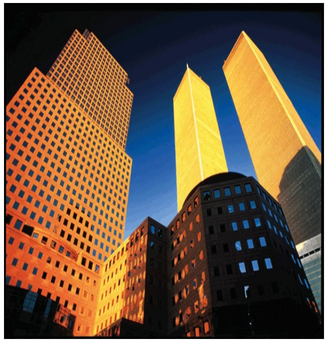
Flow of Funds in the Economy



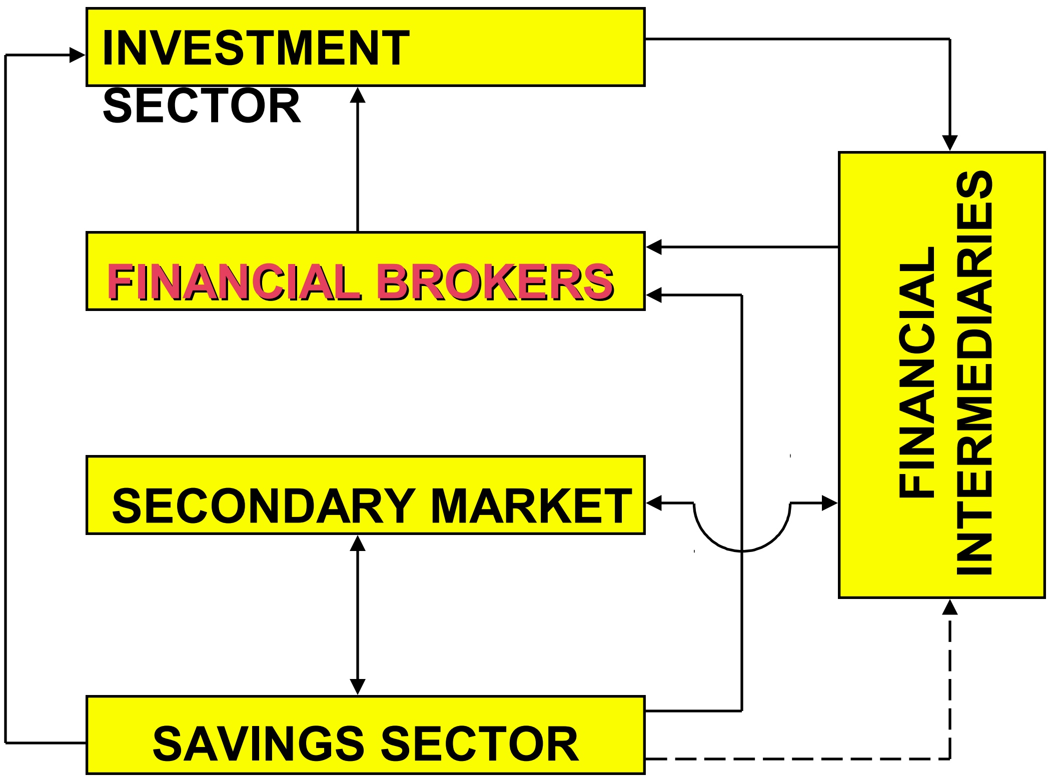


Flow of Funds in the Economy





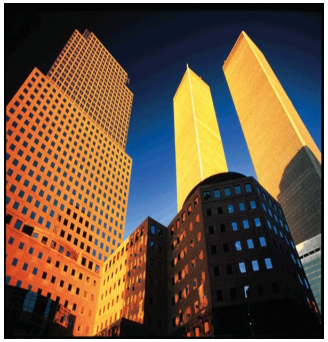
Flow of Funds in the Economy



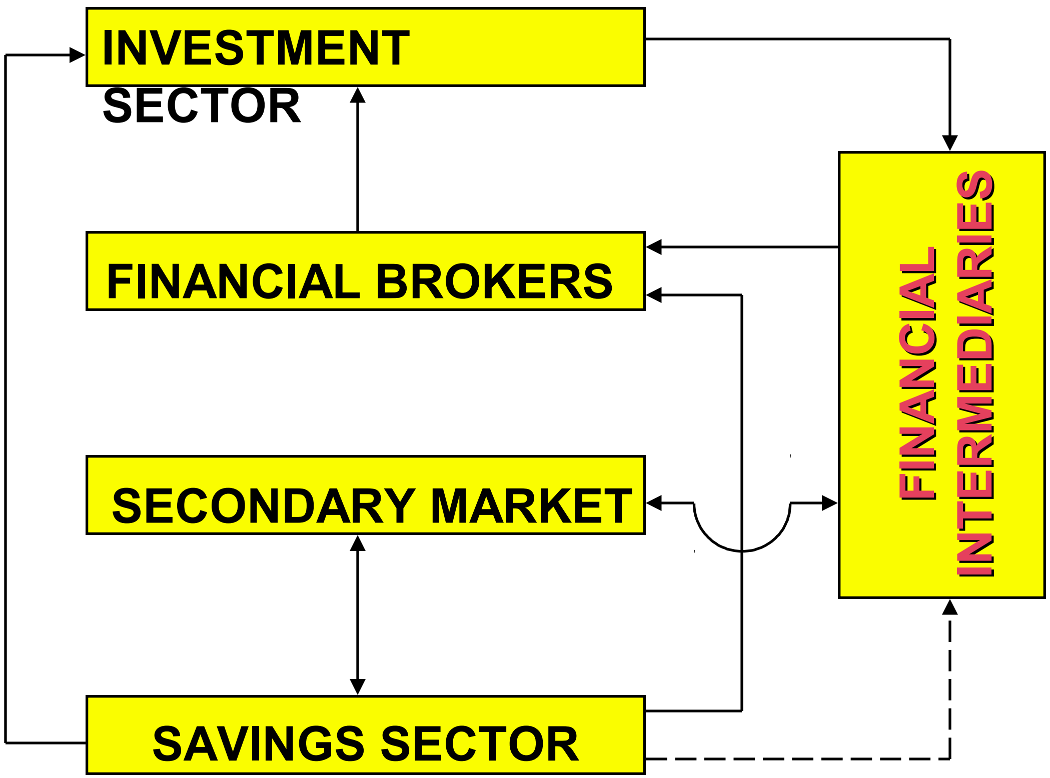
FINANCIAL BROKERS

Investment Bankers

Mortgage Bankers

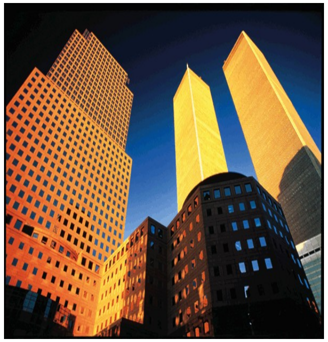


Flow of Funds in the Economy

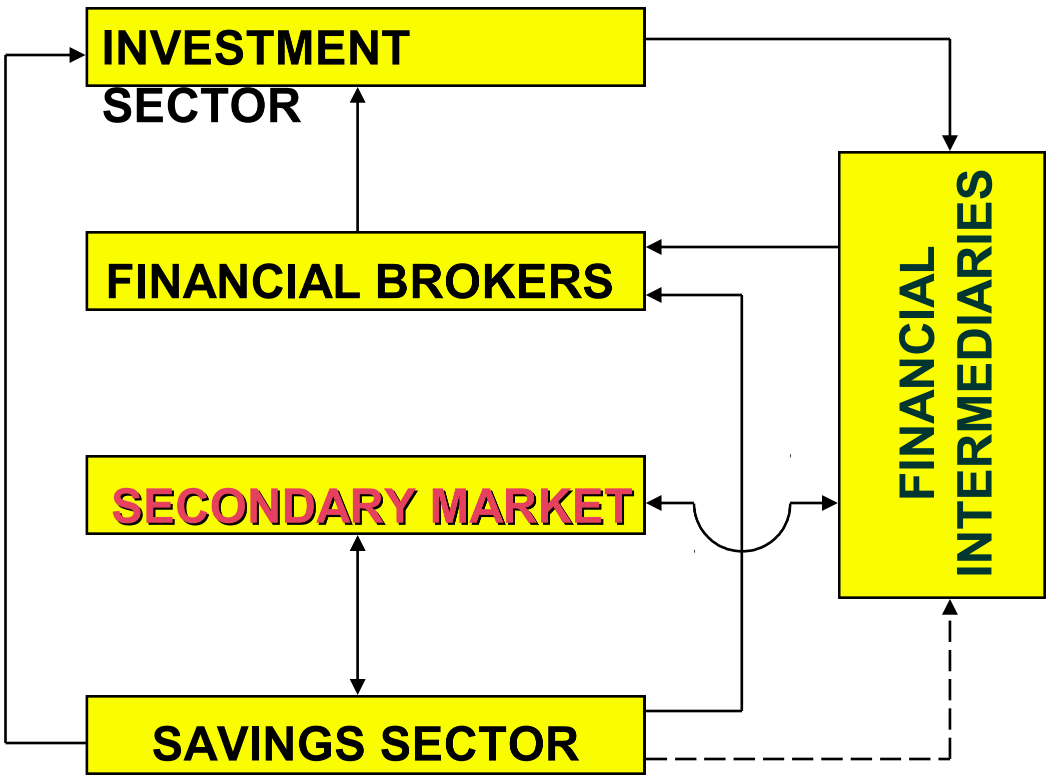


FINANCIAL INTERMEDIARIES

Commercial Banks
Savings Institutions
Insurance Cos.
Pension Funds
Finance Companies
Mutual Funds



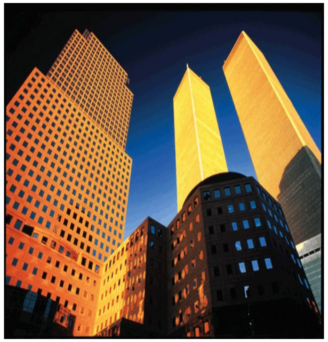
Flow of Funds in the Economy



SECONDARY MARKET

Security Exchanges

OTC Market

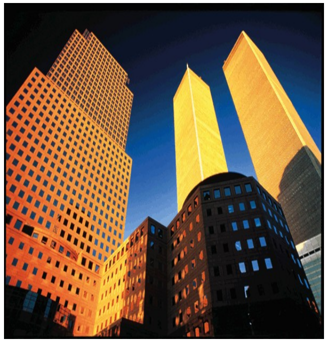


Allocation of Funds

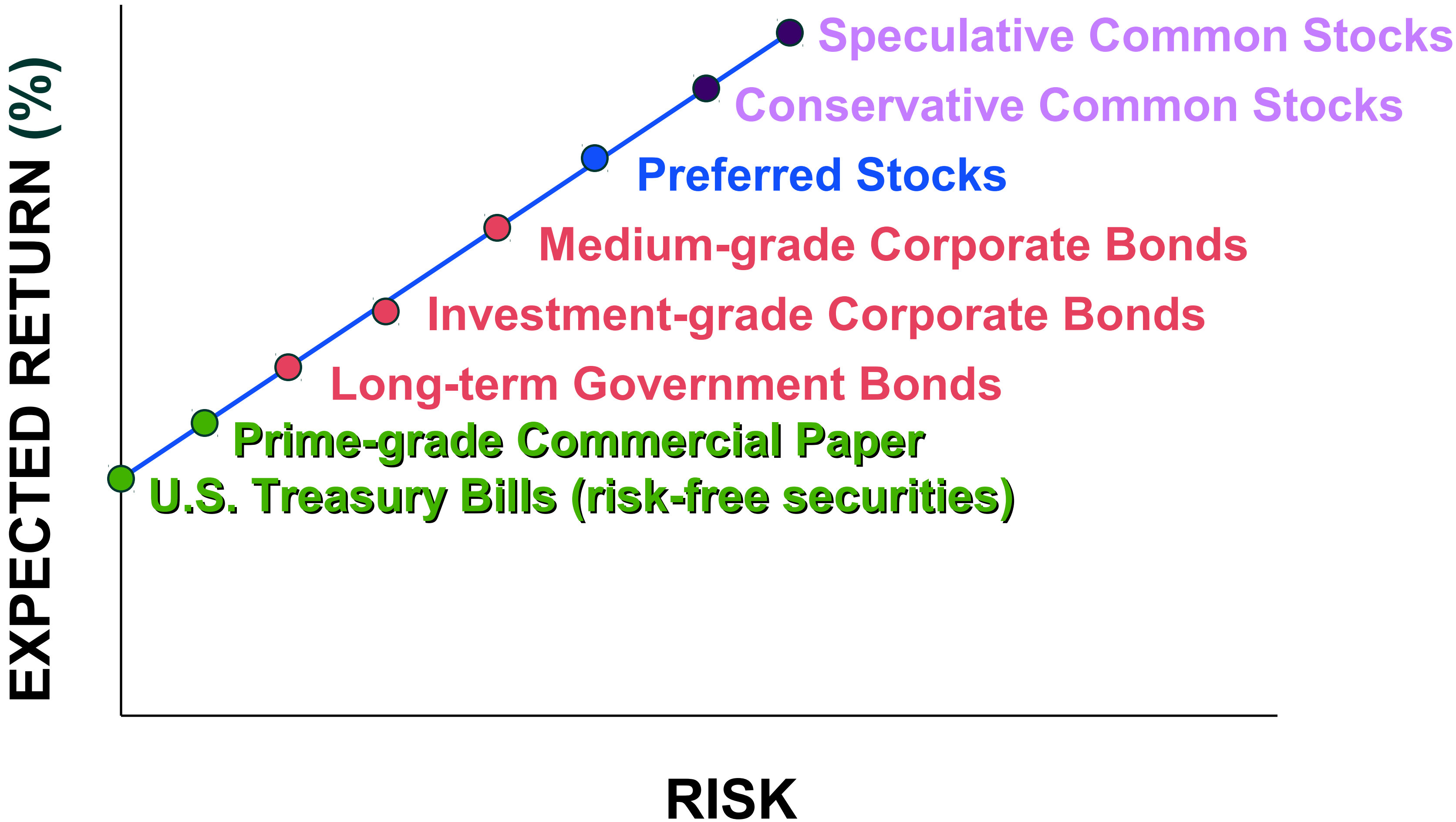
Funds will flow to economic units that are willing to provide the greatest expected return (holding risk constant).

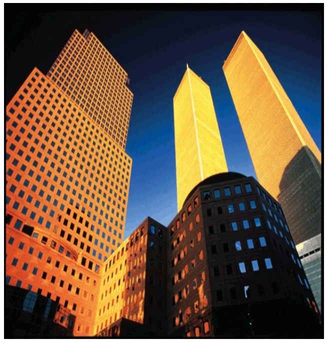
In a rational world, the highest expected returns will be offered only by those economic units with the most promising investment opportunities.

Result: Savings tend to be allocated to the most efficient uses.



Risk-Expected Return Profile

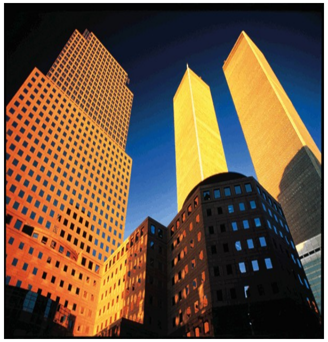




What Influences Security Expected Returns?

Default Risk is the failure to meet the terms of a contract.

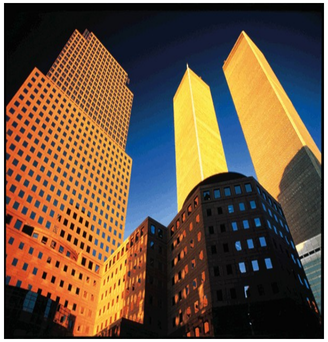
Marketability is the ability to sell a significant volume of securities in a short period of time in the secondary market without significant price concession.



Ratings by Investment Agencies on Default Risk

MOODY'S INV SERVICE		STANDARD & POOR'S	
Aaa	Best Quality	AAA	Highest Grade
Aa	High Quality	AA	High Grade
A	Upper Med Grade	A	Higher Med Grade
Baa	Medium Grade	BBB	Medium Grade
Ba	Possess Speculative Elements	BB	Speculative
⋮	⋮	⋮	⋮
C	Lowest Grade	D	In Default

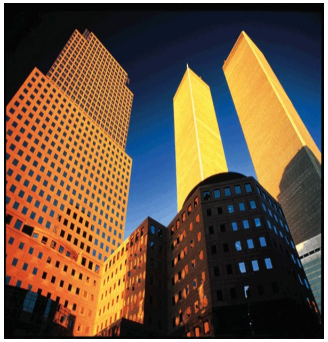
Investment grade **represents the top four categories.**
Below investment grade **represents all other categories.**



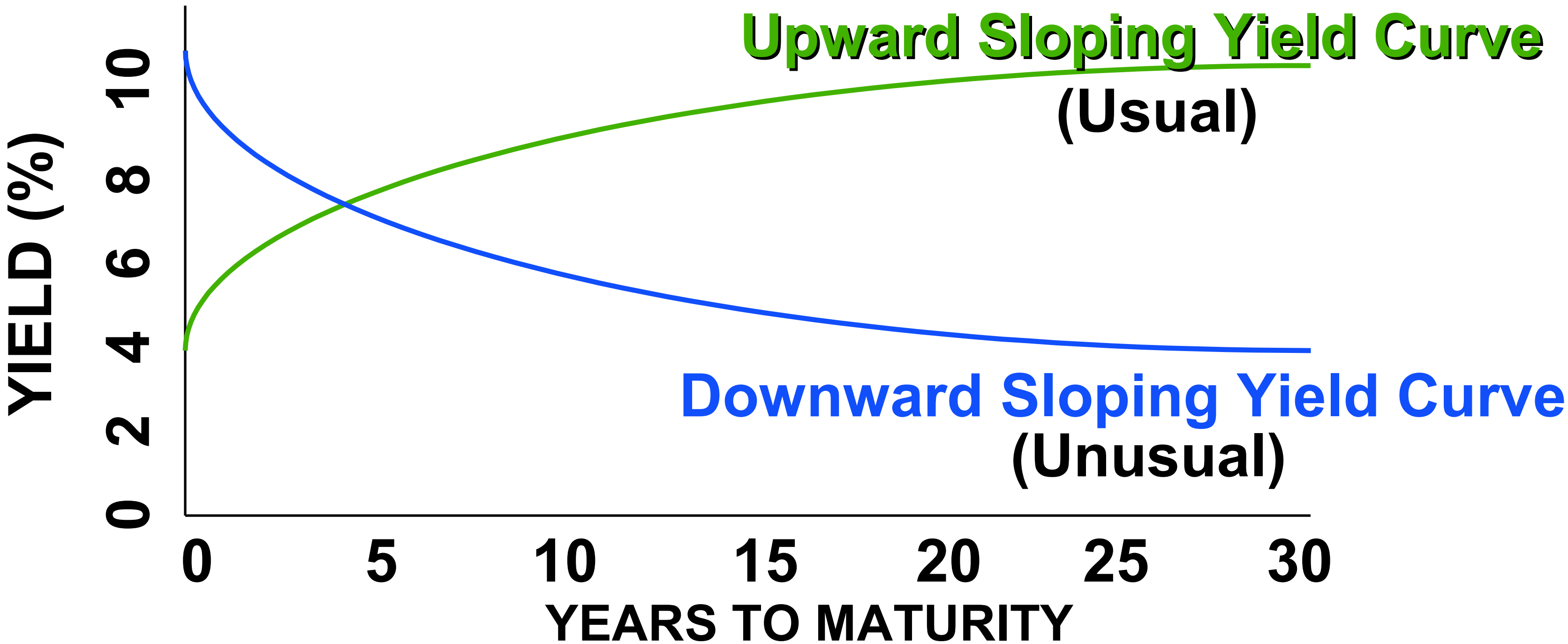
What Influences Expected Security Returns?

Maturity is concerned with the life of the security; the amount of time before the principal amount of a security becomes due.

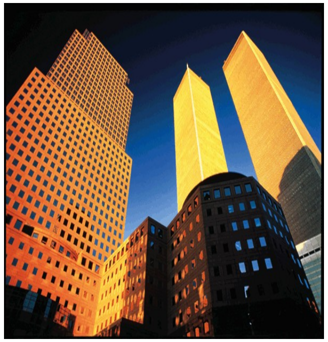
Taxability considers the expected tax consequences of the security.



Term Structure of Interest Rates



A yield curve is a graph of the relationship between yields and term to maturity for particular securities.



What Influences Expected Security Returns?

Embedded Options provide the opportunity to change specific attributes of the security.

Inflation is a rise in the average level of prices of goods and services. The greater inflation expectations, then the greater the expected return.