



Estimating Factors Affecting the Sustainable Environmental Development

Assist. Prof.
Dr. Ali S. Alobaidy
Accounting Department

1. More recently, the definition of disasters was no longer limited to natural disasters but included a completely new concept that reflected environmental disasters.
2. The demand for development has grown from the demand for environmental protection when the world realized that it was neglecting the environment and was being degraded.
3. UNESCO has defined sustainable development that every generation has to leave water, soil and other resources to the next generations, in the form it has acquired, and to leave behind the species of organisms found on the ground without being endangered.



The problem is that some countries, especially the developing countries are suffering from imbalances between the use of limited natural resources to achieve economic growth and which pay no attention to the deterioration of environment and then meet the needs of population for products in contexts that ensure sustainability of these resources.



Hypothesis

The growing demand for food and products in the developing countries has led to the intensive use of natural resources and, consequently, to engage in production activity in a manner that does not take into account the sustainability of environment, which has weakened economic growth rates and contributed to the degradation of their ecosystems.



Data required were obtained from some international organizations. The last attempt to assess the ESI of the developing countries, as well as the vital indicators of the ecosystem in the developing countries was used and its results are still supported by researchers.

Data of the GDP and population which were published by the Wikipedia in 2017 were used to get the per capita GDP.



In 2002, the Economic Forum for Sustainable Development Indicators was presented five key characteristics in a country that achieves sustainable development:

- (1) it can maintain its natural systems at advanced levels,**
- (2) human pressures are low on the environment,**
- (3) its social systems and population are not vulnerable to the environmental degradation,**
- (4) be able to establish institutional and social systems that have the potential to respond to environmental challenges, and**
- (5) be cooperative with other countries in achieving common goals in protecting the environment internationally**



Country	Environmental Sustainability Index (ESI)*	Average Per Capita GDP (1000 \$/year)**	Vital Efficiency Index (VEI)*	Population (million)
Tunisia	51.800	9.500	- 0.130	10.660
Oman	47.900	0.260	0.520	3.080
Jordan	47.800	5.900	- 0.490	6.250
Algeria	46.000	7.300	- 0.280	35.950
Morocco	44.800	5.000	- 0.020	23.910
UA Emirates	44.600	0.480	- 2.040	5.380
Egypt	44.000	6.500	- 0.260	79.360
Syria	43.800	5.100	-0.420	21.230
Mauritania	42.800	2.200	- 0.320	3.260
Libya	42.300	5.800	- 1.040	6.500
Lebanon	40.500	15,500	- 0.560	3.960
Saudi Arabia	37.800	24.200	- 1.050	28.170
Yemen	37.300	2.300	- 0.420	25.130
Kuwait	36.600	41.700	- 1.500	3.680
Sudan	35.900	2.700	+ 0.260	32.660
Iraq	33.600	3.900	- 0.260	38.190



Data on the vitality of the ecosystem in the selected developing countries, mostly the Arab countries (Appendix 1), were derived from a table of all developing countries presented in the percentages (between 0 and 100). We found that the figures in those countries bear a negative signal, with the exception of Sudan, which showed a positive sign. The index provides rates for the values of the variable components in the form of (z-scores), which is zero for the mean, and then (+1) or (-1) standard deviation higher or less than the arithmetic mean, and (+2) or (-2) standard deviation higher or lower than the arithmetic mean. They are naturally distributed, were 68% of which are below standard deviation by one degree, 95% are below the standard deviation by two degrees and 99.7% fall below the standard deviation by three degrees.



The negative figures in the table indicate the degree of deviation of these values from the general arithmetic mean. The largest negative number is a positive deviation higher than the global arithmetic mean. This is shown by all countries except Sudan, which means that it is a negative deviation from the global arithmetic mean in maintaining the efficiency of the vital system. The standard model used to analyze the relationship between economic growth and sustainable development is as follows:

$$Y = a + b_1 X_1 + B_2 X_2 + e$$

where Y is the index of sustainable development, X1 is an indicator per capita share of GDP and X2 is a vital ecosystem indicator, then the random variable e.







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Financial Planning









4. Attract competition

5. Induces government intervention

6. Leads to employee unrest.

Wealth maximization :emphasis on stockholder's wealth, the individual stockholder can use this wealth to maximize his individual utility.

Arguments: p. in book



Financial Institutions

Types of Financial Institutions

Banks: A bank is a commercial or state institution that provides financial services, including issuing money in various forms, receiving deposits of money, lending money and processing transactions and creating credits.

1. Central Bank : reserve bank or monetary authority, is an entity responsible for the monetary policy of its country or of a group of member states, such as the European Central Bank (ECB), the Federal Reserve System in the USA, State Bank in Iraq.



2. Commercial Bank: which accepts deposits from customers and in turn makes loans, even in excess of the deposits; a process known as fractional-reserve banking. Some banks (called Banks of Issue) issue banknotes as legal tender.

3. Investment Bank: which helps companies and governments and their agencies to raise money by issuing and selling securities in primary market. They assist public and private corporations in raising funds in the capital markets (both equity and debt), as well as in providing strategic advisory services for mergers,



4.Saving Bank: whose primary purpose is accepting savings deposits, and performing some other functions.

5.Micro Finance Banks: which are working in the different countries with the contribution of UNDO or World Bank for the purpose of poverty reduction programme.

6.Islamic Banks: which refer to a system of banking activity that is consistent with Islamic Law principles and guided by Islamic economies (prohibits usury and collection and payment of interest).

7.Specialized Banks: (a) **Agricultural Bank-** geared towards the development of agricultural sector, (b) **Industrial Bank:**



8. Non-Banking Financial Company (NBFC)

Which provide banking services without meeting the legal definition of a bank, i.e. one that does not hold a banking license. They act as supplier of loans and services relating to events within people lives such as funding private education, wealth management and retirement planning.

9. Investment Company: It is a company (corporation, business trust, partnership, or limited liability company) that issues securities and primarily engaged in the business of investing in securities.



10. Leasing Companies : A lease or tenancy is the right to use or occupy personal property given by a lessor to another person (lessee or tenant) for a fixed or indefinite period of time, whereby the lessee pay the lessor a fixed payment.

11. Insurances Companies : which may be classified as, (1) **Life Insurance companies**, which sell life insurance, annuities and pensions products, (2) **Non-Life or General Insurance Companies**, which sell other types of insurance.



Mutual Fund

An investment which is comprised of a pool of funds collected from many investors for the purpose of investing in securities such as stocks, bonds, money market securities and similar assets.

12.Brokerage Houses: Stock brokers assist people in investing, online companies are called “discount brokerages”, companies with branch presence are called “full service brokerages” or “private client services”.



Financial Institution Functions

1. provide a service as intermediaries of the capital and debt markets. They are responsible for transferring funds from investors to companies in need of those funds.

2. To do so, savings accounts are pooled to mitigate the risk brought by individual account holders in order to provide funds for loans.

Misleading financial analysis

Financial analysis of an organization is misleading when it is used to misrepresent the organization, its situation or its prospect.



Financial Statement Analysis

Horizontal Analysis

The percentage analysis of increase and decrease in related items in comparative financial statements.

Ex1: Comparative Balance Sheets

Lincoln Company Comparative Balance Sheet



	2008	2007	Increase (Decrease)	
			Amount	%
Assets				
Current assets	\$ 550,000	\$ 533,000	\$ 17,000	3.2%
Long-term investments	95,000	177,000	(82,500)	(46.5%)
Prop. Plant, and equip. (net)	444,500	470,000	(25,500)	(5.4%)
Intangible assets	<u>50,000</u>	<u>50,000</u>		
Total assets	<u>\$ 1,139,500</u>	<u>\$ 1,230,500</u>	<u>\$(91,000)</u>	<u>(7.4%)</u>

Liabilities

Current liabilities
 Long-term liabilities
 Total liabilities

Stockholders' Equity

Preferred 6% stock
 Common stock
 Retained earnings

Total Stockholders' equity

Horizontal Analysis:

Difference ————— \$ 17,000

Base Year (2007) \$533,000

= 3.2%



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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:

$$(\text{Interest Expense}) \times (1 - \text{Tax Rate})$$

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 2007 loss have

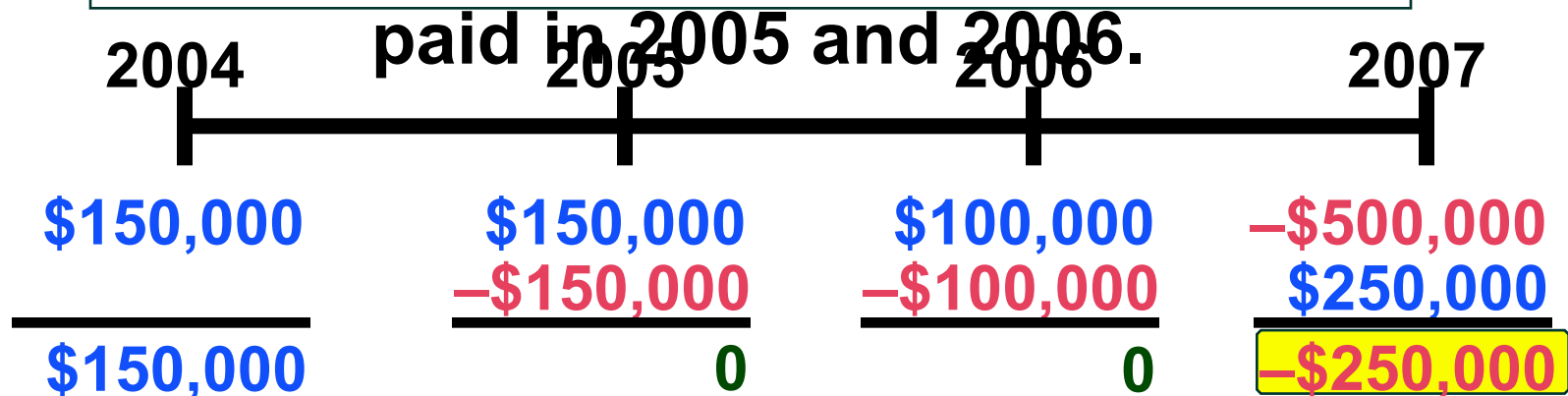




Corporate Losses and Gains Example

The loss can offset the gain in each of the years 2005 and 2006. The remaining **\$250,000** can be carried forward to 2008 or beyond.

Impact: Tax refund for federal taxes





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 US 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 US has a **progressive tax structure** with four tax brackets of **10%, 15%, 25%, 28%, 33%, and 35%**.
- The current maximum cash dividend (most) and capital gains tax rates is **15%**.
- Personal income taxes are determined by **taxable income**, **filing status**, and **various credits**.
- Result is that low income individuals pay **no** federal tax and others may fluctuate between the **marginal rates**.

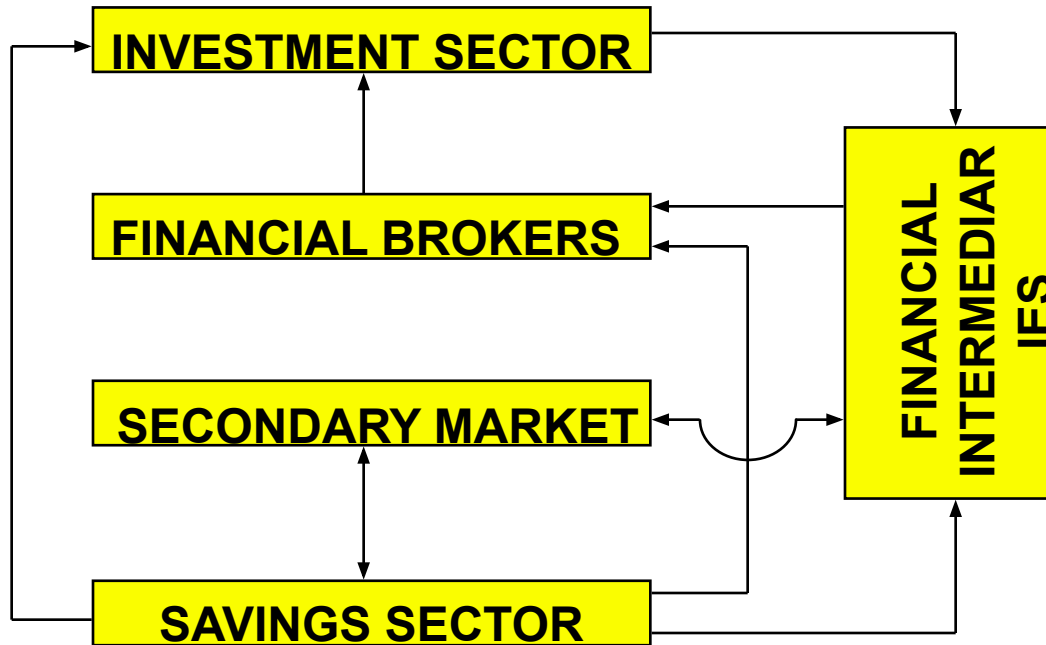


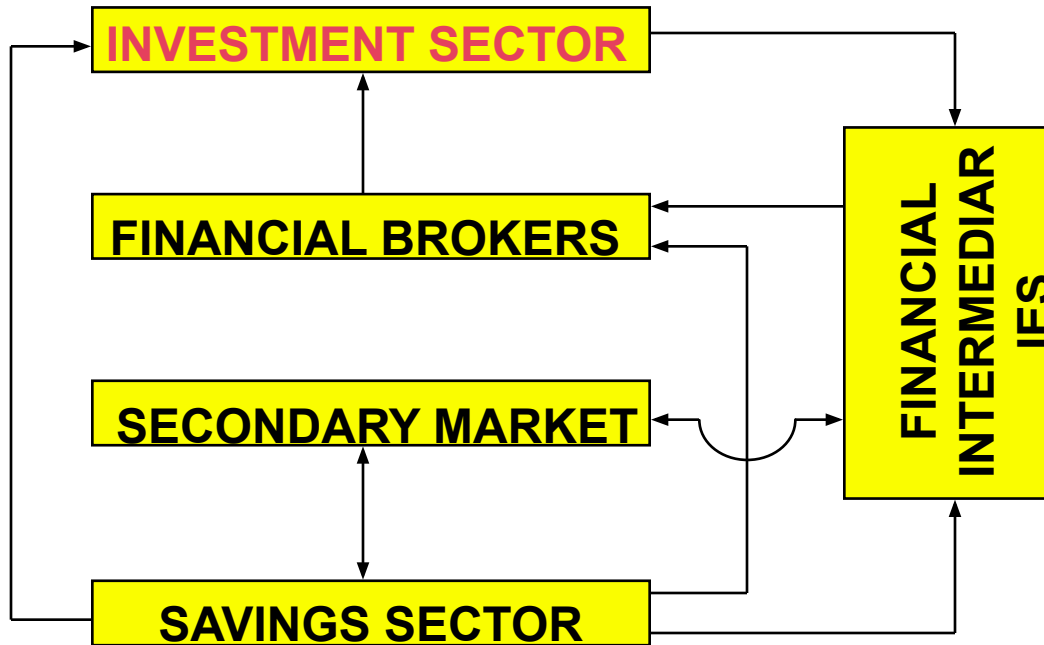
Financial Environment

- **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.**



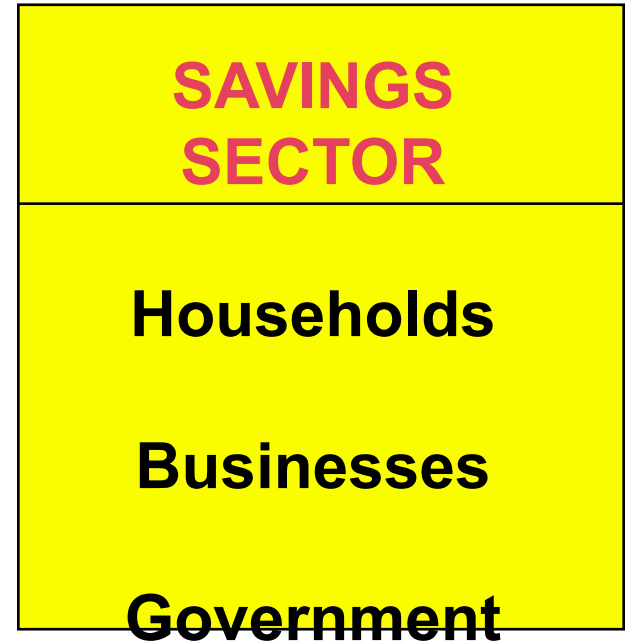
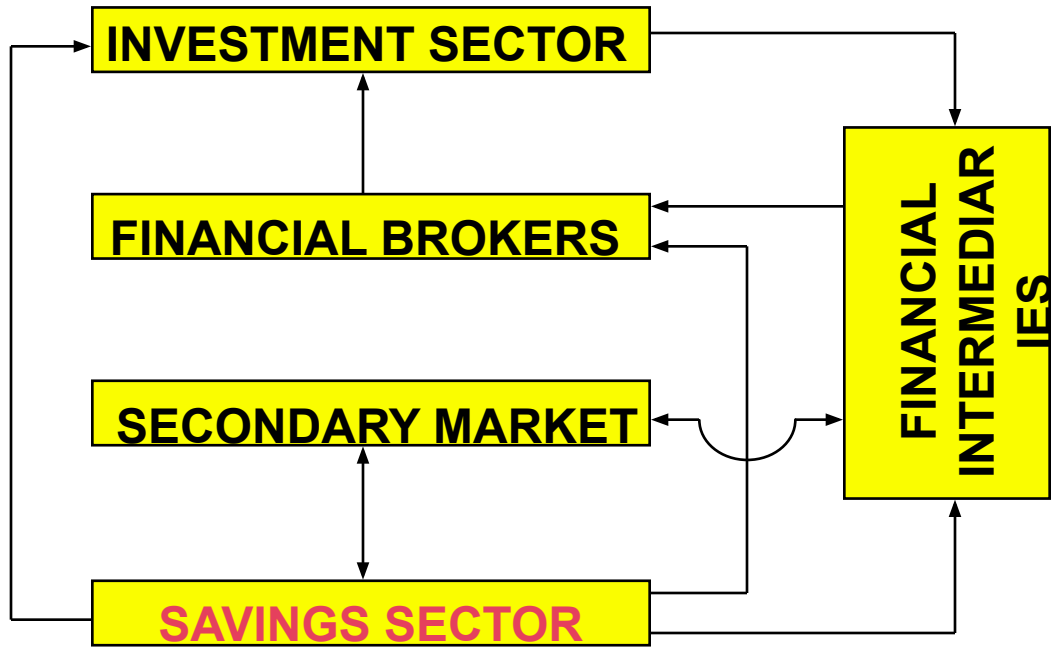
Flow of Funds in the Economy





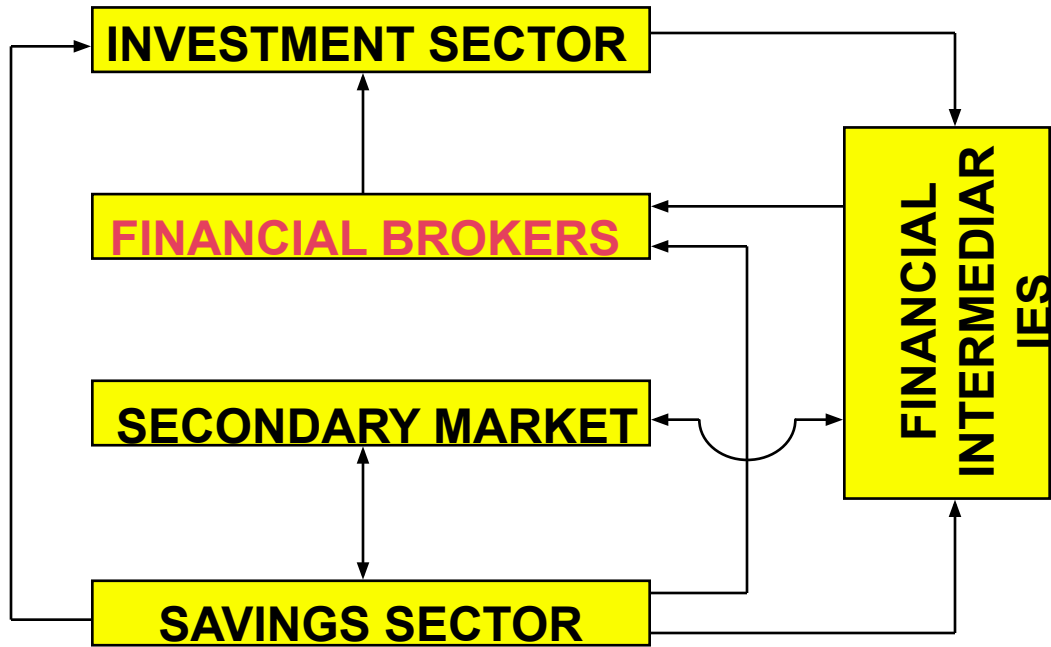


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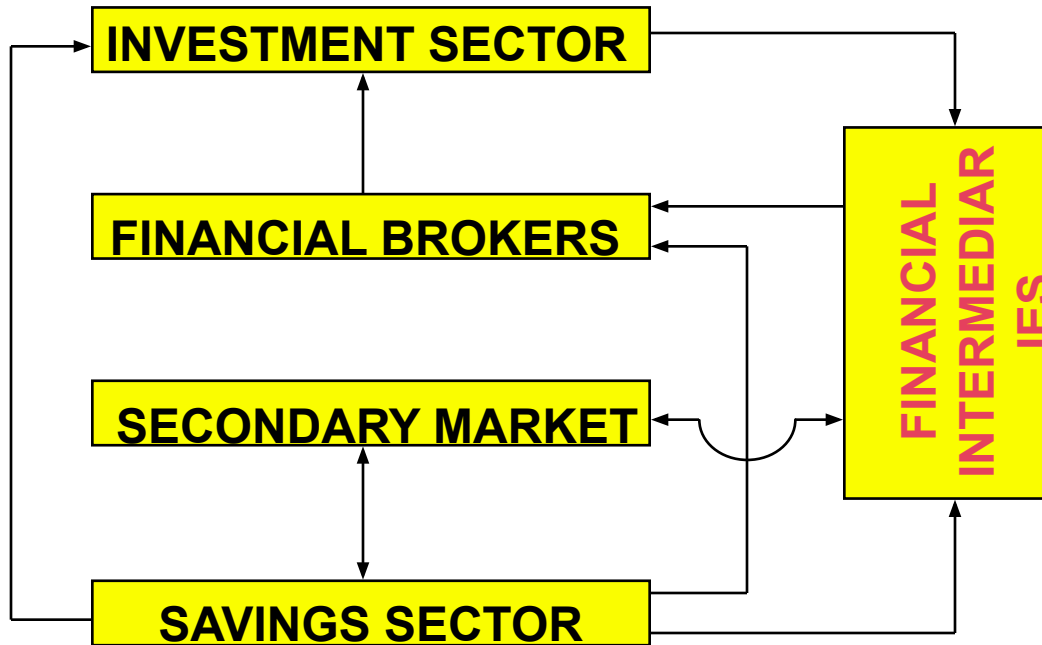


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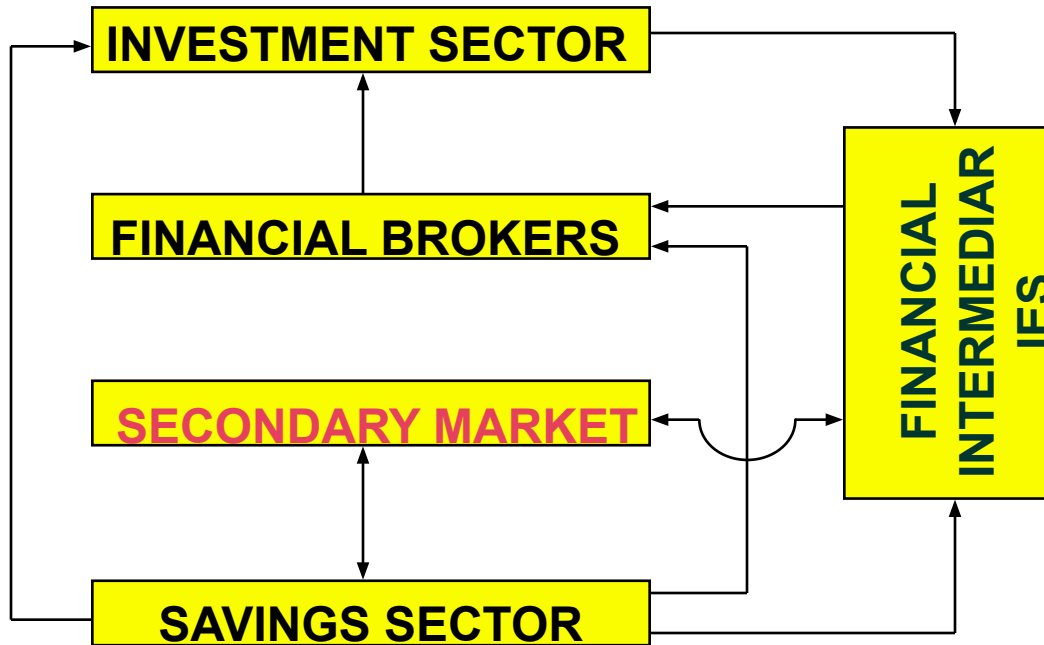


Flow of Funds in the Economy





Flow of Funds in the Economy



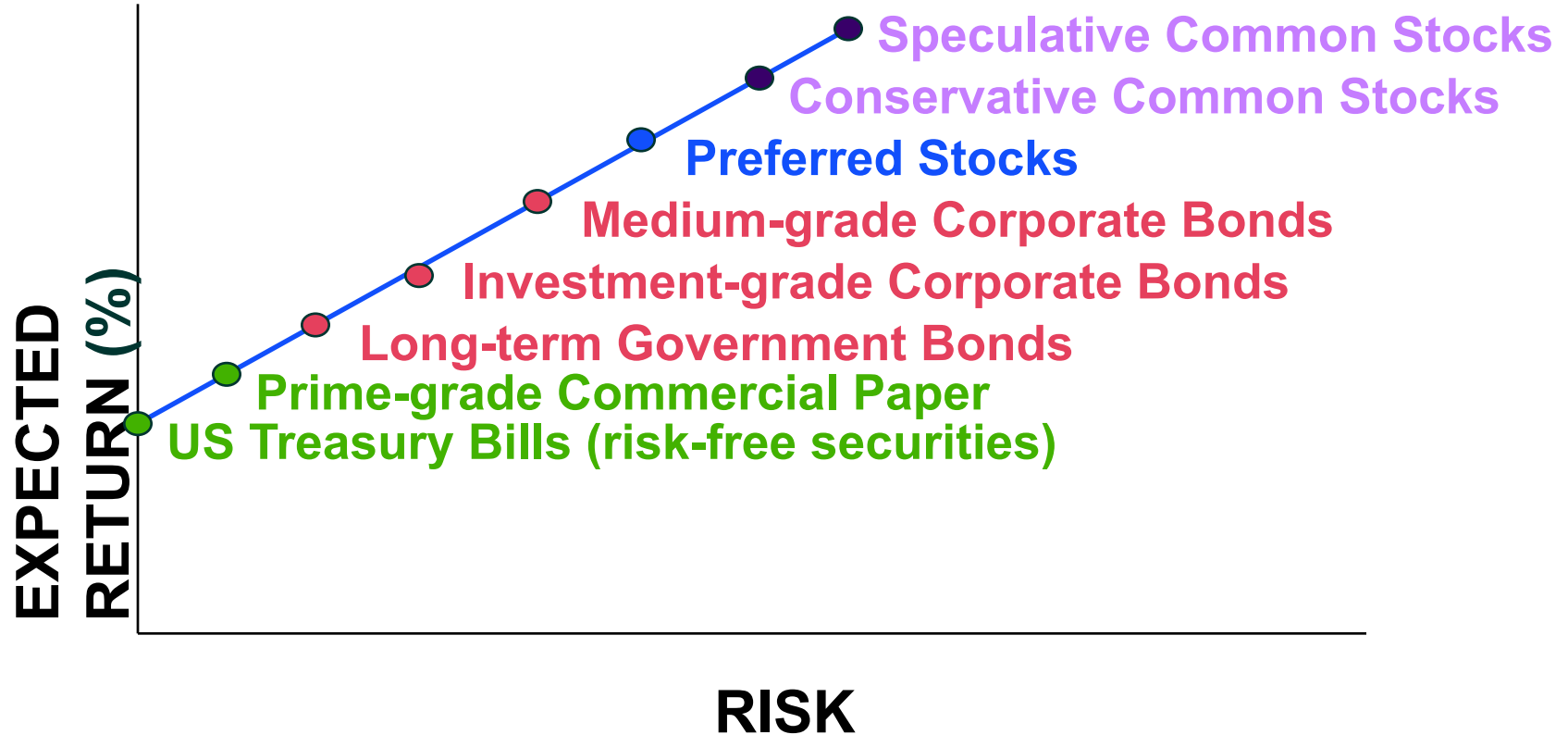


Allocation of Funds

- **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**



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

⋮	⋮	⋮	⋮

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

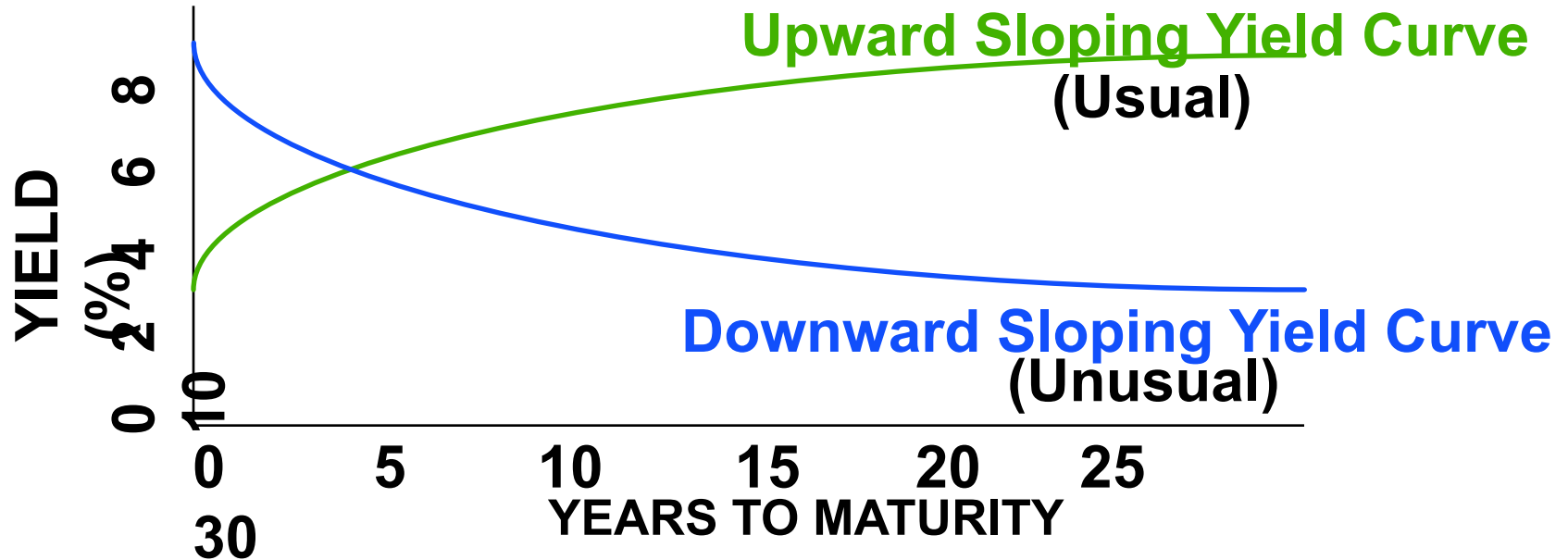


What Influences Expected Security Returns?

- ***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.



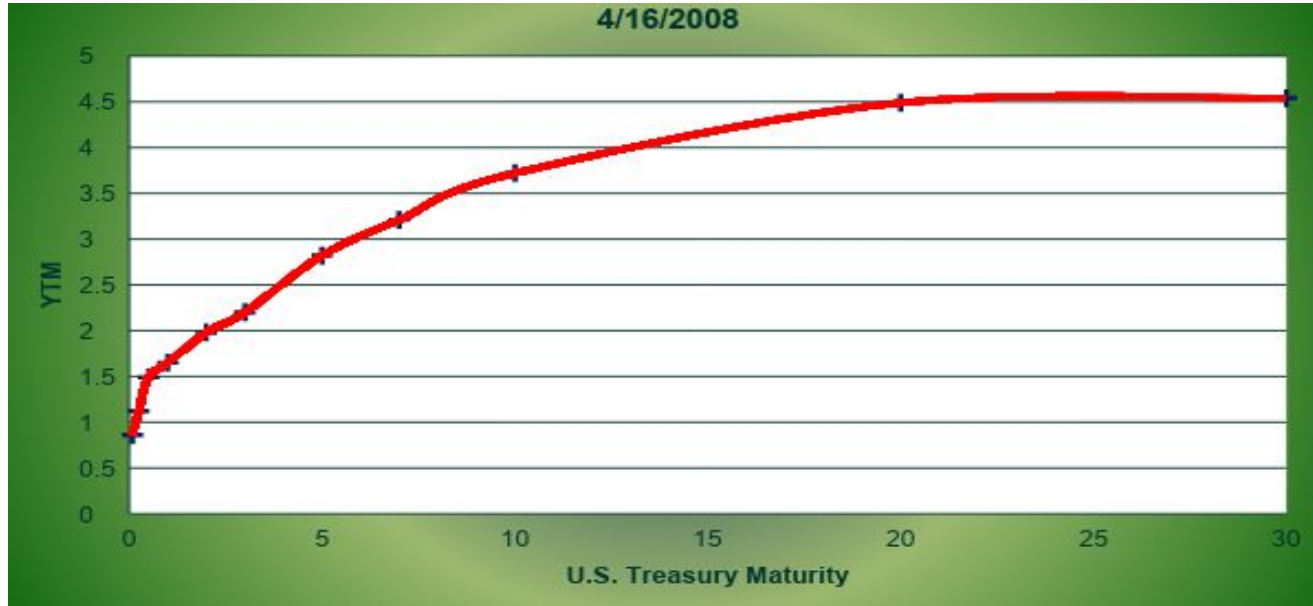
Term Structure of Interest Rates



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



US Treasury Yield Curve *(4 / 16 / 2008)*



This **yield curve** is the relationship of US Treasuries effective April 16, 2008 (see VW13E-02.xlsx).



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.