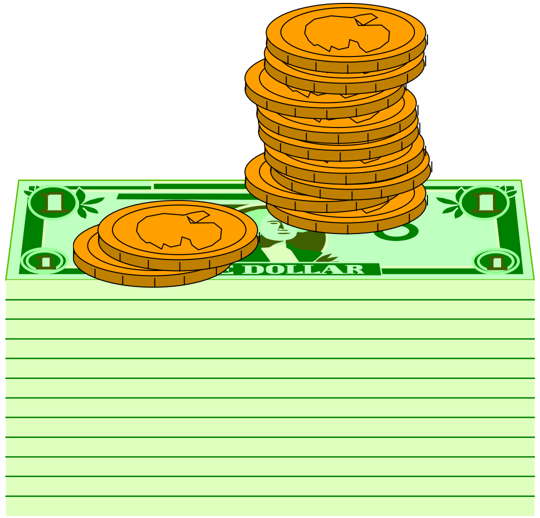
UNIT- 3

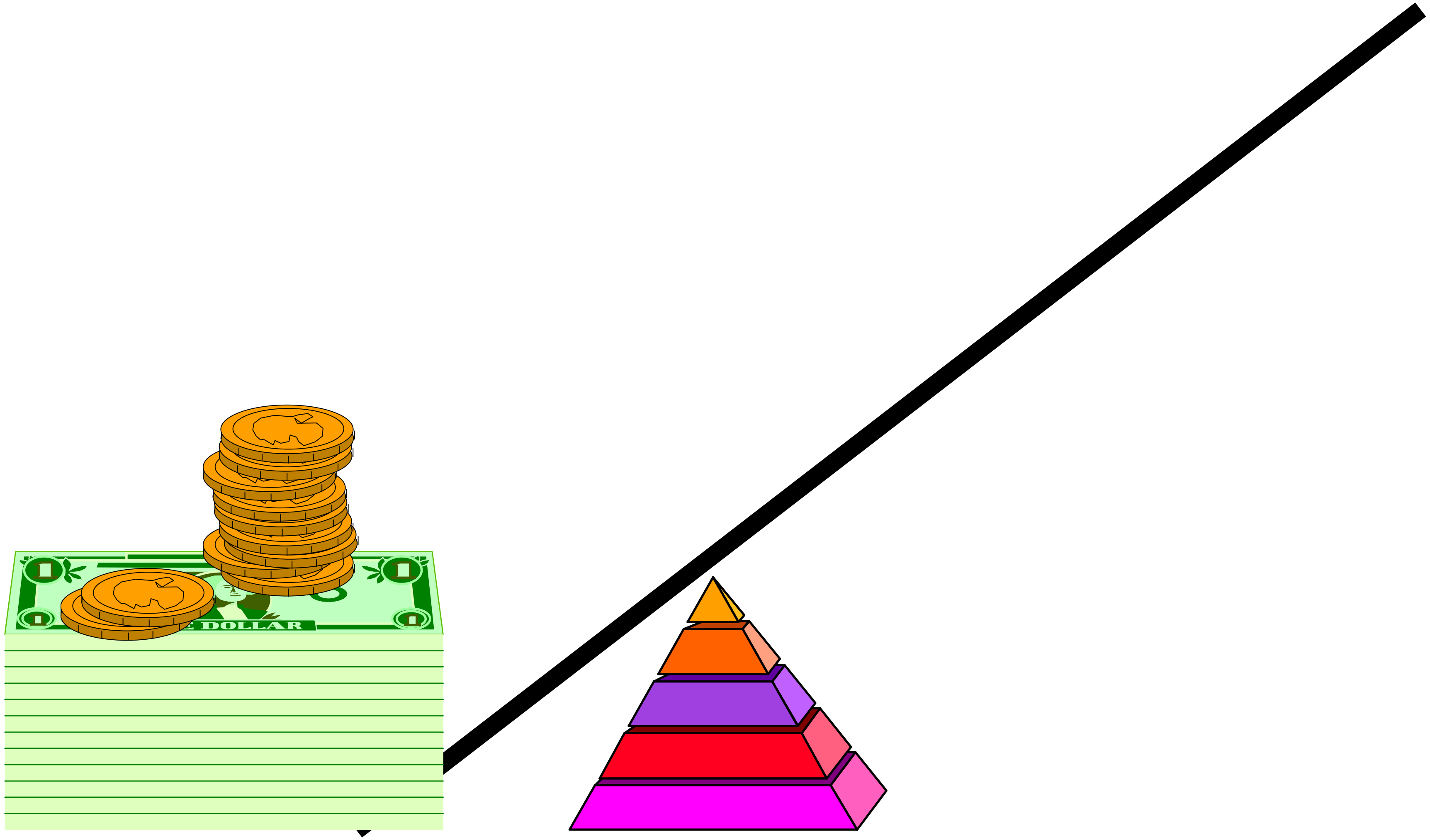
By: Dr. Tripti Tripathi

LEVERAGE

By: Dr. Tripti Tripathi

What is Leverage?

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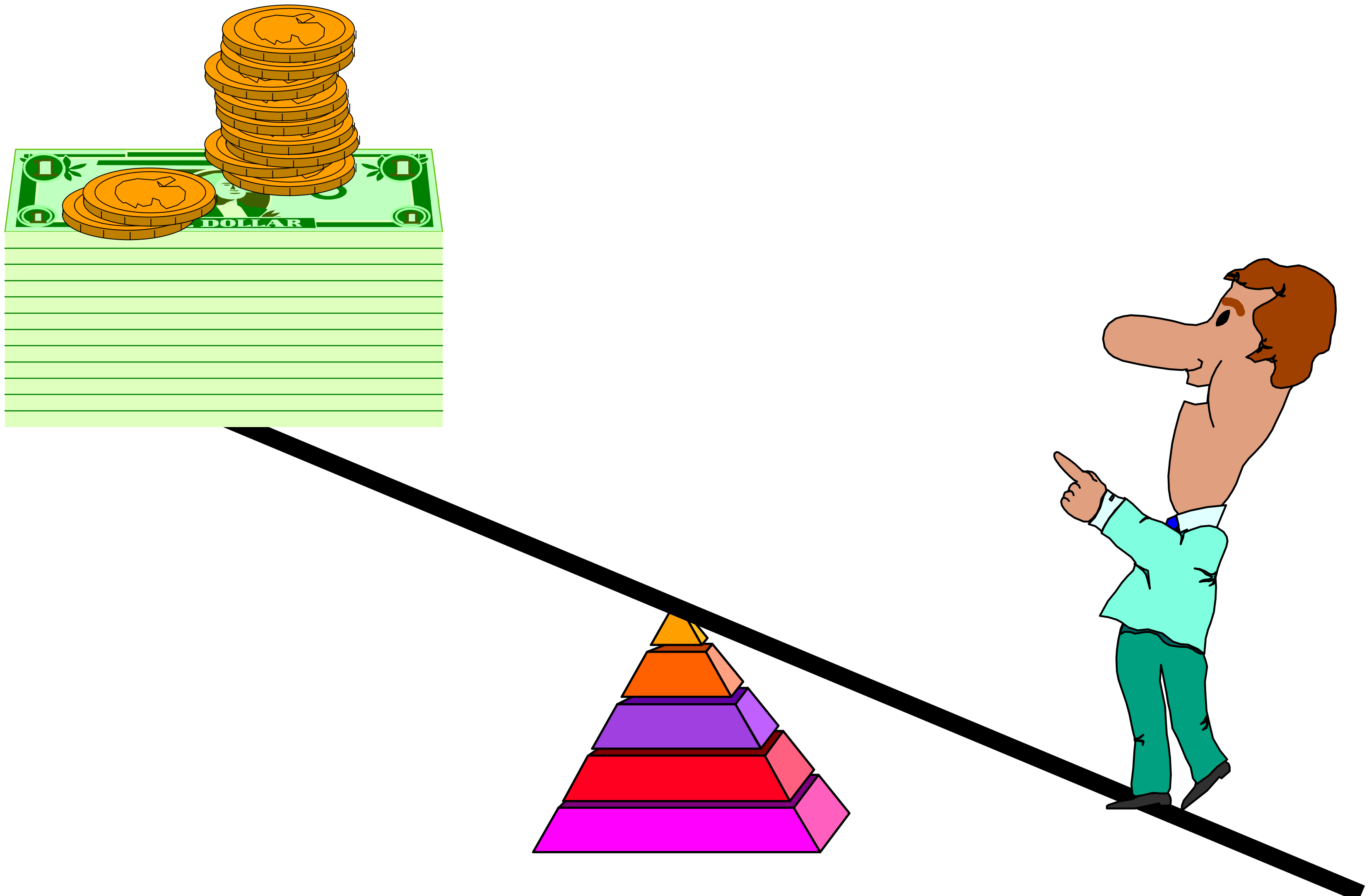
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TYPES OF LEVERAGE

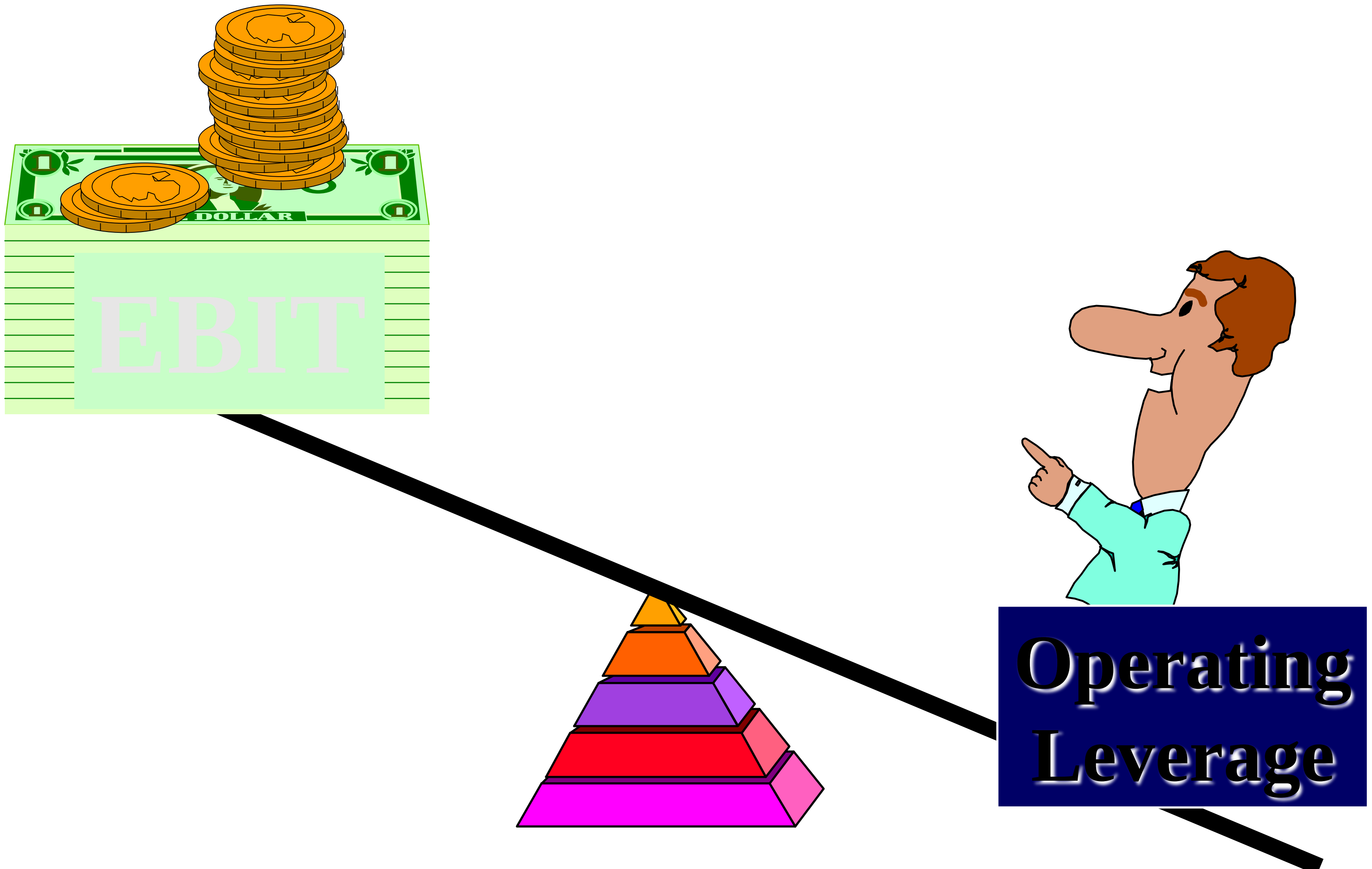
1. Operating Leverage- Affects a firm’s Business Risk.
2. Financial Leverage-Affects a firm’s Financial Risk
3. Combined Leverage.

Business Risk

- The variability or uncertainty of a firm's operating income (EBIT).

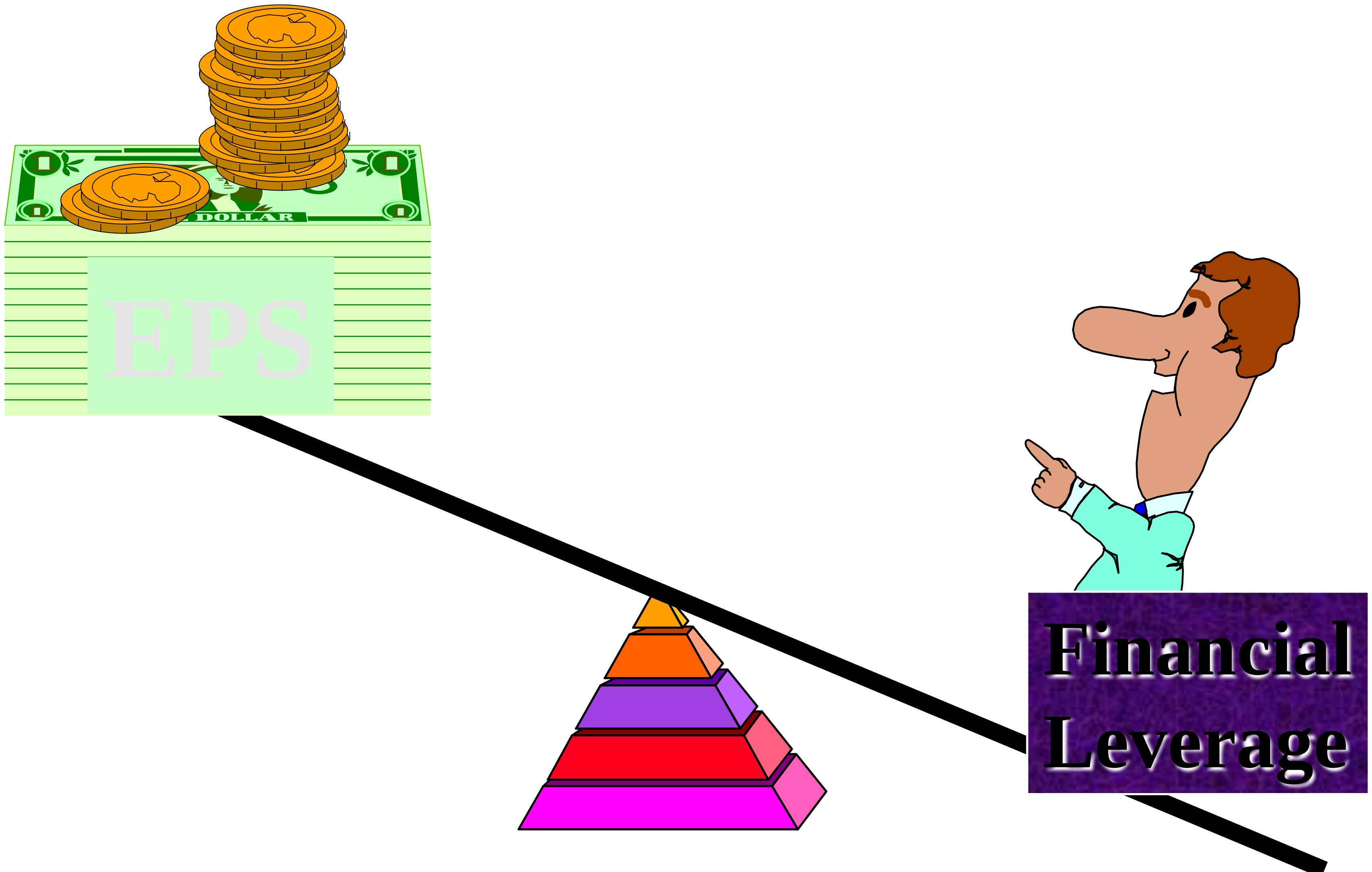
Affected By:

- Sales volume variability,
- Competition,
- Cost variability,
- Product diversification,
- Product demand

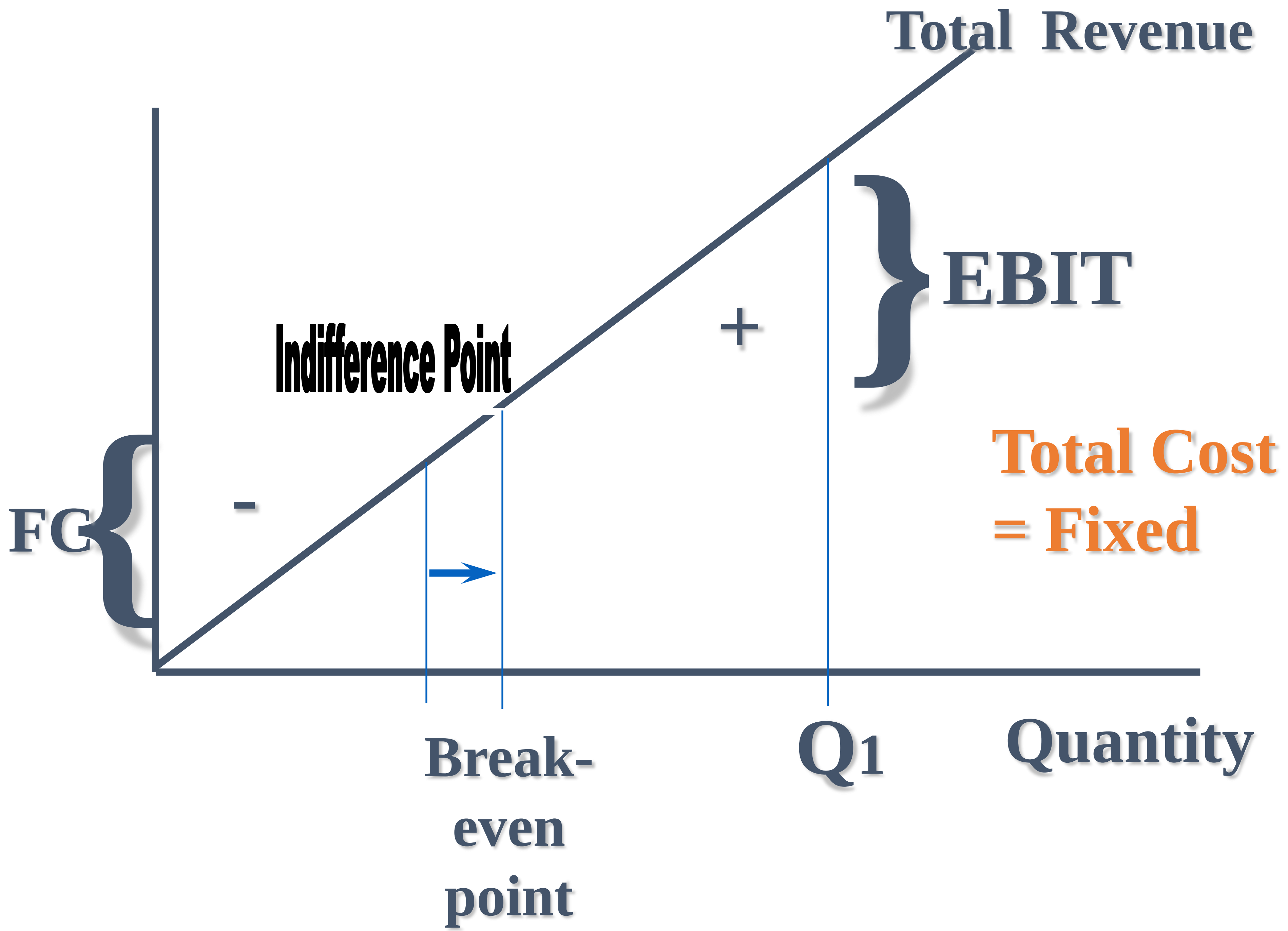

EBIT
DOLLAR
Operating
Leverage

Financial Risk

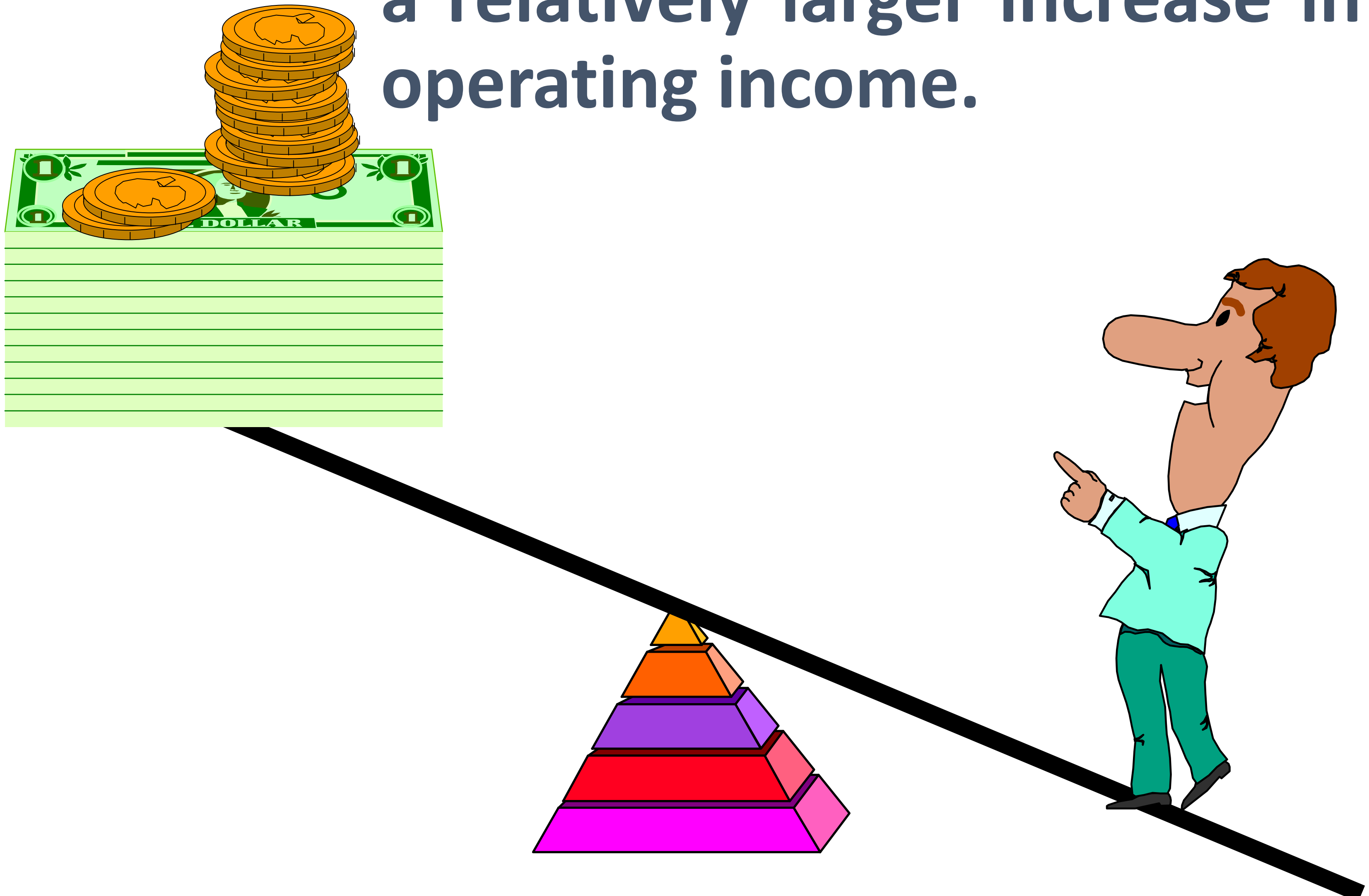
The variability or uncertainty of a firm’s earnings per share (EPS) and the increased probability of insolvency that arises when a firm uses



EPS
DOLLAR
Financial Leverage


Total Revenue
EBIT
+
Indifference Point
Total Cost
= Fixed
FC
-
Break-
even
point
Q1
Quantity

With high Operating leverage, an increase in sales produces a relatively larger increase in operating income.



Analytical Income Statement

Sales

\- variable costs

\- fixed costs

operating income

\- interest

EBT

\- taxes

Net Income

} contribution margin

EBT (1 - t) = Net Income,

so,

Net Income / (1 - t) = EBT

Degree of Operating Leverage (DOL)

Operating Leverage : By using fixed operating costs, a small change in sales_revenue is magnified into a larger change in operating income.

This "multiplier effect" is called the degree of Operating Leverage.

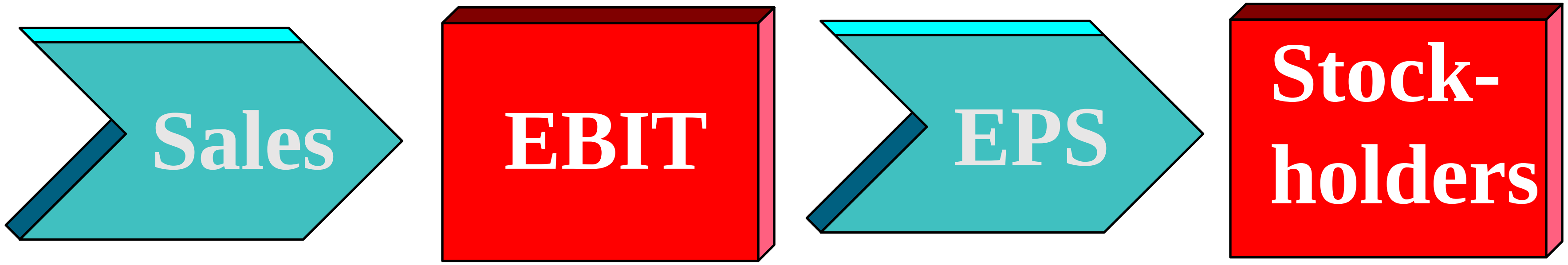
Degree of Operating Leverage from Sales Level (S)

$$\text{DOLs} = \frac{\%\ \text{change in EBIT}}{\%\ \text{change in sales}}$$

$$= \frac{\dfrac{\text{change in EBIT}}{\text{EBIT}}}{\dfrac{\text{change in sales}}{\text{sales}}}$$

What does this tell us?

- If DOL=2, then a 1% increase in sales will result 2% in a increase in operating income (EBIT).



Degree of Financial Leverage (DFL)

Financial Leverage: By using fixed cost financing, a small change in operating income is magnified into a larger change in earnings per share.

This "multiplier effect" is called the degree of Financial Leverage.

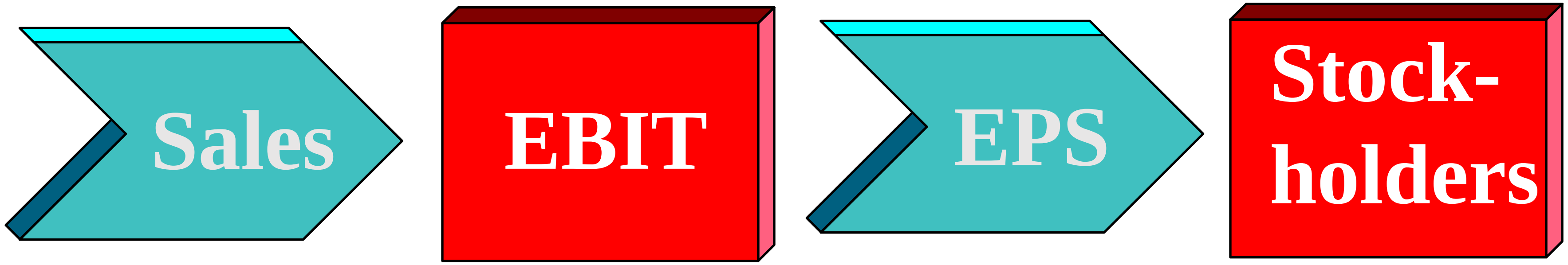
Degree of Financial Leverage

$$DFL = \frac{\%\ \text{change in EPS}}{\%\ \text{change in EBIT}}$$

$$= \frac{\dfrac{\text{change in EPS}}{\text{EPS}}}{\dfrac{\text{change in EBIT}}{\text{EBIT}}}$$

What does this tell us?

- If DFL=3, then a 1% increase in operating income will result in a 3% increase in earnings per share.



Degree of Combined Leverage (DCL)

Combined Leverage: By using *operating leverage* and *financial leverage*, a small change in sales is magnified into a larger change in earnings per share.

- **This “multiplier effect” is called degree of Combined Leverage.**

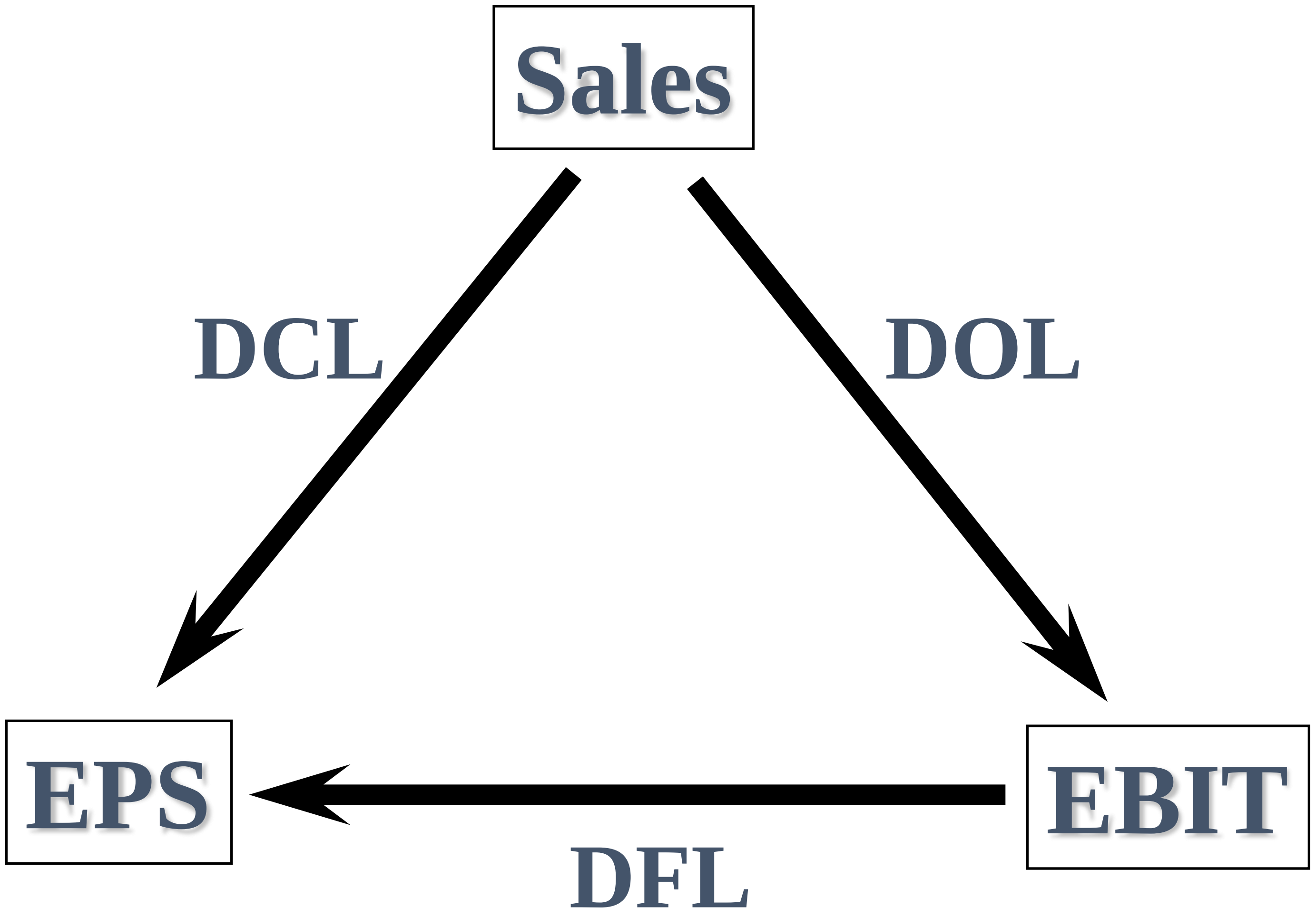
Degree of Combined Leverage

$$DCL = DOL \times DFL$$

$$= \frac{\%\ \text{change in EPS}}{\%\ \text{change in Sales}}$$

$$= \frac{\dfrac{\text{change in EPS}}{\text{EPS}}}{\dfrac{\text{change in Sales}}{\text{Sales}}}$$

Leverage



Sources of Finance

Capital required for a business can be classified under two main categories, viz.,

- Fixed Capital, and
- Working Capital.

- every business needs funds for two purposes.

- for its establishment and to carry out its day-to-day operations.

Sources of Finance

Long term funds are required to create production facilities through purchase of fixed assets such as

- plant,
- machinery,
- land,
- building,
- furniture, etc.

Sources of Finance

- Investment in these asset represent that part of firm’s capital which is blocked on permanent or fixed basis and is called fixed capital.

Funds are also needed for short-term purposes for the purchase of raw materials, payment of wages and other day to day expenses, etc. These funds are known as working capital.

Sources of Finance/Funds

In our present day economy, finance is defined as the provision of money at the time when it is required.

Every enterprise, whether big or medium or small, needs finance to carry on its operations and to achieve its targets.

Sources of Finance/Funds

In fact finance is so indispensable today that is rightly said that it is the life blood of enterprise.

With out adequate finance, no enterprise can possibly accomplish its objectives.

In every concern there are two methods of raising finance, viz.,

- Raising of owned capital,
- Raising of borrowed capital

Sources of Finance/Funds

The financial requirements may be for a long term, medium term or short term.

Financial Requirements

<u>**Short-Term**</u>	<u>**Medium-Term**</u>	<u>**Long-Term**</u>
Bank Credit	**Issue of Debentures**	**Issue of shares**
Customer advances	**Issue of Preference shares**	**Issue of Debentures**
Trade Credit	**Bank Loan**	**Ploughing back of profits**
	Public deposit / Fixed deposit	**Loan from spec.financial institutions**
	Loans from financial institutions	

Issue of shares

- The company's owned capital is split into large number of equal parts,such a part being called a "share".

  The person holding the share as shareholder and becomes part-owner of the company.

  For this reason, the capital so raised is known as "owned capital" and the shares are called "ownership securities".

Issue of shares

- The share capital of the company is ideal for meeting the long term requirements.

  It need not be paid back to the shareholders within the life time of the company.

  The only exception is the sum raised by the issue of redeemable preference shares.

Types of shares

- A public company can issue two types of share.

  Equity share

  Preference share

Equity share

- Equity share has number of special features

The dividend on these shares are paid after the dividend on preference share has been paid.

The rate of dividend depends upon the amount of profits available and the intention of directors.

Equity share

- The Equity shareholders have the chance of earning good dividends in times of prosperity and run the risk of earning nothing in times of adversity.

  The equity shareholders have a residual claim on the company's asset in case of liquidation.

  The company is controlled by the equity shareholders and they are entitled to vote in the meetings of the company.

Preference shares

- Preference shares are those which carry preferential right over other class of shares with regard to payment of dividend and repayment of capital.

The rate of dividend on preference share is a fixed one.