INDEX NUMBERS-I

INTRODUCTION…………

*Prices of all commodities do not remain constant….

*The measurement of such changes is possible only by the means of some statistical methods….

*An index number measures the relative change in price, quantity, value or some other item of interest from one time period to another….

*A simple index number measures the relative change in one or more than one variable…..

DEFINITION OF INDEX NUMBERS......

ACCORDING TO– CROXTEN AND COWDEN
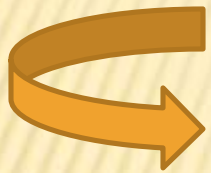
Index Numbers are devices for measuring differences in the magnitude of a group of related variables...........

USES OF INDEX NUMBERS….

1)To Simplify Complexities..

2) Helpful in Fixation of Salaries and
    Dearness Allowances..

3) Helpful in Predictions..

4) Helpful in Comparisons..

5) Index numbers act as Economic
    Barometers..

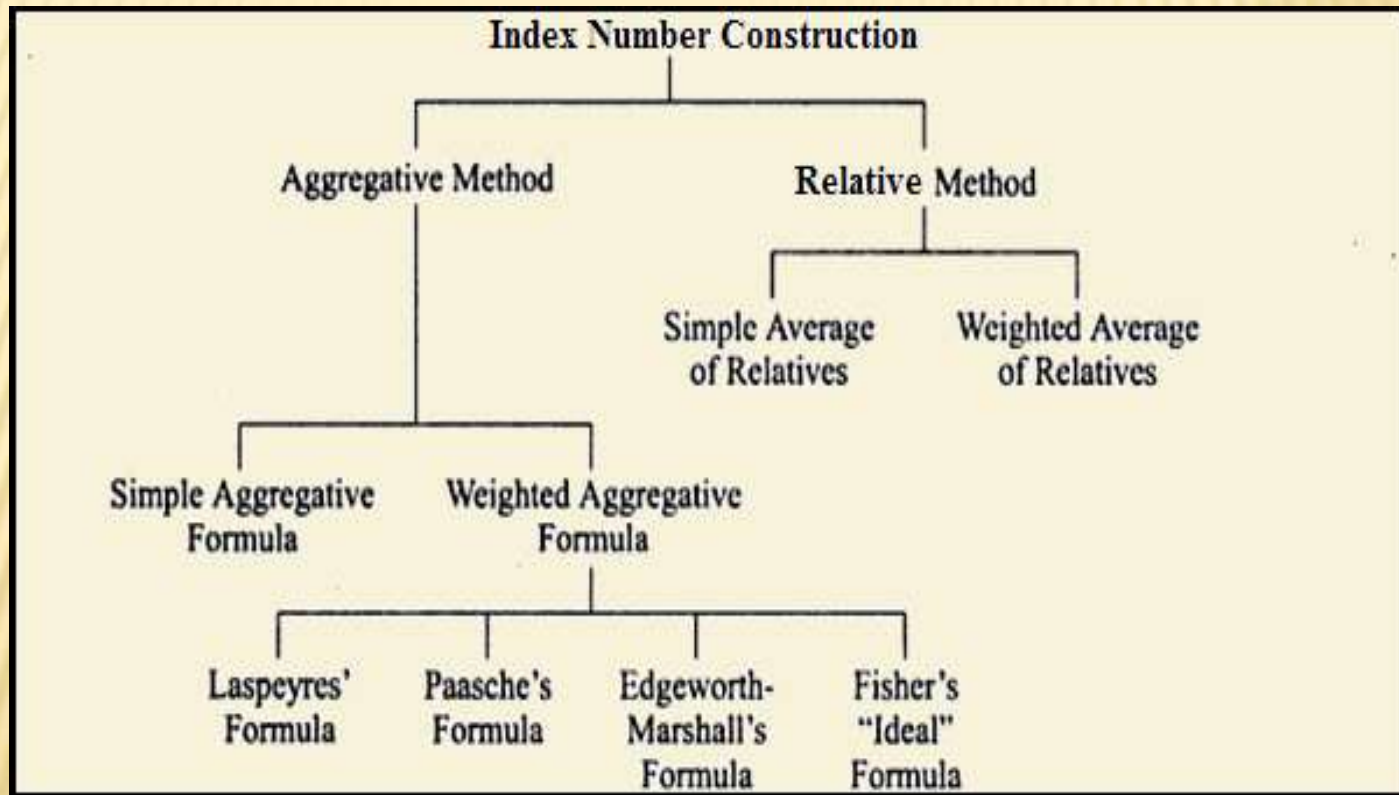6) To Measure Purchasing Power of Money..

LIMITATIONS OF INDEX NUMBERS...

1) Estimated..

2) International Comparison is not Possible..

3) Arbitrary weightage..

4) Limited Use..

TYPES OF INDEX NUMBERS-

METHODS OF CONSTRUCTING INDEX NUMBERS..........

Index Number Construction

- Aggregative Method
  - Simple Aggregative Formula
  - Weighted Aggregative Formula
    - Laspeyres' Formula
    - Paasche's Formula
    - Edgeworth-Marshall's Formula
    - Fisher's "Ideal" Formula
- Relative Method
  - Simple Average of Relatives
  - Weighted Average of Relatives

SIMPLE AGGREGATIVE METHOD

It consists in expressing the aggregate price of all commodities in the current year as a percentage of the aggregate price in the base year.

$$P_{01} = \frac{\sum p_1}{\sum p_0} \times 100$$

P_{01} = Index number of the current year.

p_1 = Total of the current year's price of all commodities.

p_0 = Total of the base year's price of all commodities.

SIMPLE AVERAGE OF PRICE RELATIVES METHOD...

SIMPLE AVERAGE OF RELATIVES METHOD.

The current year price is expressed as a price relative of the base year price. These price relatives are then averaged to get the index number. The average used could be arithmetic mean, geometric mean or even median.

$$P_{01} = \frac{\sum \left(\frac{p_1}{p_0} \times 100 \right)}{N}$$

Where N is Numbers Of items.

When geometric mean is used-

$$\log P_{01} = \frac{\sum \log \left(\frac{p_1}{p_0} \times 100 \right)}{N}$$

WEIGHTED AGGREGATIVE METHOD....

WEIGHTED INDEX NUMBERS

- These are those index numbers in which rational weights are assigned to various chains in an explicit fashion.

(C) Weighted aggregative index numbers-

These index numbers are the simple aggregative type with the fundamental difference that weights are assigned to the various items included in the index.

➢ Dorbish and bowley's method.
➢ Fisher's ideal method.
➢ Marshall-Edgeworth method.
➢ Laspeyres method.
➢ Paasche method.
➢ Kelly's method.

LASPEYRE'S & PAASCHE'S METHOD.....

LASPEYRES METHOD-

This method was devised by Laspeyres in 1871. In this method the weights are determined by quantities in the base.

$$p_{01} = \frac{\sum p_1 q_0}{\sum p_0 q_0} \times 100$$

Paasche's Method.

This method was devised by a German statistician Paasche in 1874. The weights of current year are used as base year in constructing the Paasche's Index number.

$$p_{01} = \frac{\sum p_1 q_1}{\sum p_0 q_1} \times 100$$

Formula For Calculating Index Numbers

Dorbish & Bowleys Method:

This method is a combination of Laspeyre's and Paasche's methods. If we find out the arithmetic average of Laspeyre's and Paasche's index we get the index suggested by Dorbish & Bowley.

$$P_{01} = \frac{\dfrac{\sum p_1 q_0}{\sum p_0 q_0} + \dfrac{\sum p_1 q_1}{\sum p_0 q_1}}{2} \times 100$$

Fisher's Ideal Index:

Fisher's deal index number is the geometric mean of the Laspeyre's and Paasche's index numbers.

$$P_{01} = \sqrt{\frac{\sum p_1 q_0}{\sum p_0 q_0} \times \frac{\sum p_1 q_1}{\sum p_0 q_1}} \times 100$$

MARSHALL – EDGEWORTH & KELLY'S METHOD…

Marshall-Edgeworth Method.

In this index the numerator consists of an aggregate of the current years
price multiplied by the weights of both the base year as well as the
current year.

$$p_{01} = \frac{\sum p_1 q_0 + \sum p_1 q_1}{\sum p_0 q_0 + \sum p_0 q_1} \times 100$$

Kelly's Method.

Kelly thinks that a ratio of aggregates with selected weights (not necessarily
of base year or current year) gives the base index number.

$$p_{01} = \frac{\sum p_1 q}{\sum p_0 q} \times 100$$

q refers to the quantities of the year which is selected as the base. It may be any
year, either base year or current year.

WEIGHTED AVERAGE OF PRICE RELATIVES METHOD....

Weighted average of price relative index numbers

In weighted Average of relative, the price relatives for the current year are calculated on the basis of the base year price. These price relatives are multiplied by the respective weight of items. These products are added up and divided by the sum of weights.

Weighted arithmetic mean of price relative-

$$P_{01} = \frac{\sum PV}{\sum V}$$

Where- $P = \frac{P_1}{P_0} \times 100$

P=Price relative
V=Value weights= $P_0 q_0$

QUANTITY INDEX NUMBERS.......

Quantity Index Numbers

THE UNIVERSITY OF QUEENSLAND

There are three approaches to the compilation of quantity index numbers.

1. Simply use the same formulae as in the case of price index numbers – simply interchange prices and quantities.

2. Use the index number identity:

$$Q_{st} = \frac{V_{st}}{P_{st}} = \left(\frac{\sum_i p_{it} q_{it}}{\sum_i p_{is} q_{is}} \right) / P_{st} = \frac{\sum_i p_{it} q_{it} / P_{st}}{\sum_i p_{is} q_{is}}$$

11

TESTS OF ADEQUACY OF INDEX NUMBER FORMULAE

Various formulae can be used for the construction of index numbers but it is necessary to select an appropriate/suitable formula out of them. **Prof. Fisher** has given the following tests to select an appropriate formula:

➢ TIME REVERSAL TEST (TRT)
➢ FACTOR REVERSAL TEST (FRT)
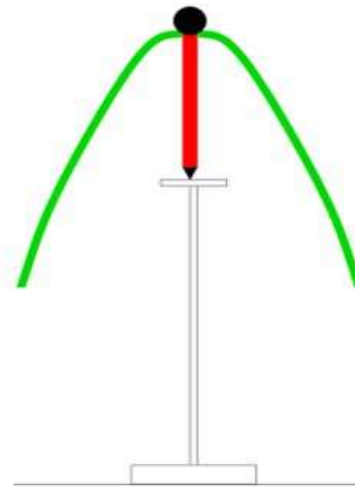
TRT & FRT.........

TIME REVERSAL TEST (TRT)

According to this test, if considering any year as a base year, some other year's price index is computed and for another price index, time subscripts are reversed, then the both price indicies must be reciprocal to each other.

TRT is satisfied when:

$$P_{01} = \frac{1}{P_{10}} \ or \ P_{01} \times P_{10} = 1$$

Where, P_{01} is price index for the year 1 with 0 as base and P_{10} is the price index for the year 0 with 1 as base.

FACTOR REVERSAL TEST (FRT)

Time reversal test permits interchange of price and quantities without giving inconsistent results, i.e. the two results multiplied together should give the true value ratio:

FRT is satisfied when:

Price Index x Quantity Index = Value Index

OR

$$P_{01} \times Q_{01} = \frac{\sum p_1 q_1}{\sum p_0 q_0}$$

INDIAN PARTNERSHIP ACT,1932

INTRODUCTION

A partnership contract is a specific contract, and is covered by the provision of the partnership act.

But wherever the situation is such that the ACT specifically dictate any measures, the provisions under the Indian Contract Act continue to apply.

PARTNERSHIP:

A partnership is an arrangement where parties, known as partners, agree to cooperate to advance their mutual interests. The partners in a partnership may be individuals, businesses, interest-based organizations, schools, governments or combinations. Organizations may partner to increase the likelihood of each achieving their mission and to amplify their reach.

CHARACTERSTICS OF PARTNERSHIP

The basic characteristics of a general partnership include group ownership, personal liability, decentralized management and pass-through federal income taxation. Limited liability of owners for business matters is the primary benefit that is available under other business structures, but it is not characteristic of a general partnership.

CHARACTERISTICS OF PARTNERSHIPS

The principal characteristics of the partnership form of business organization are:

1 Association of individuals

2 Mutual agency

3 Limited life

4 Unlimited liability

5 Co-ownership of property

TOUCHSTONE OF PARTNERSHIP

× Whether or not a business which is jointly being

operated by two or more persons is a partnership is an important difficult question. To make a judgement,it is important keep in mind the characteristics features of partnership because, sometime a contract between two or more person that appears to be a partnership might, in reality be partnership.

KINDS OF PARTNERSHIP

* Partnership at will
* Partnership for particular venture
* Partnership for fixed period
* Ordinary partnership
* Limited partnership

DISTINGUISH BETWEEN PARTNERSHIP AND CO-OWNERSHIP

- It will be naïve if we call Partnership and Co-ownership as one and the same thing. The possession of a property by more than one persons is called co-ownership. If two brothers or friends acquire property collectively, it is a case of co- ownership. The property can only be disposed off with the approval of co-owners.

  All the co-owners share ever kind of revenue arising from co-ownership. The property is not purchased with the object of earning profits. If a house is purchased to let it for rent, it becomes a case of partnership and not of co-ownership. So, any activity that is undertaken with a view to earn profit does not fall under the purview of co-ownership.
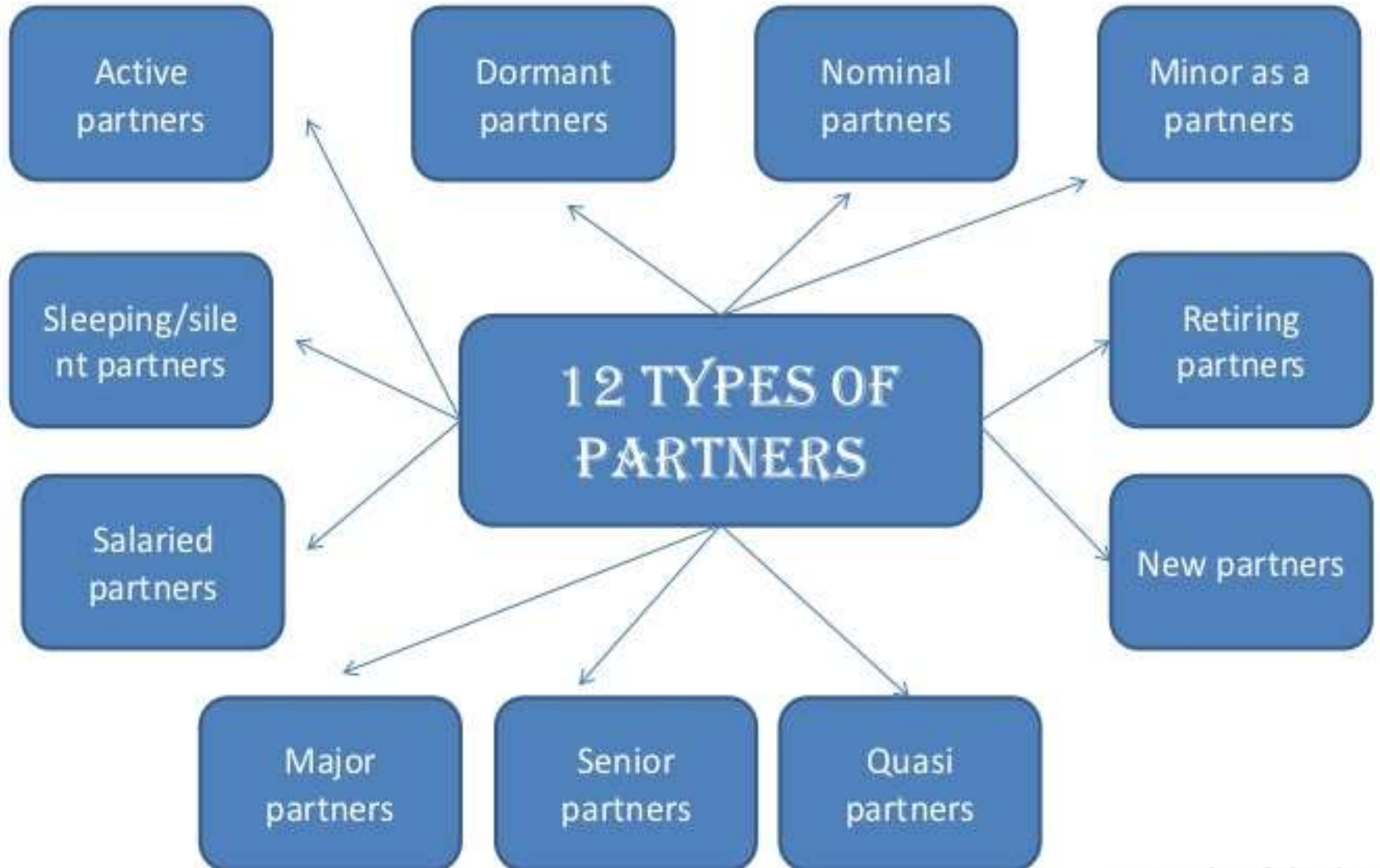
Rights Of Partners

➤ Right to take part in the conduct of business.

➤ Right to express opinion.

➤ Right of access to accounts.

➤ Right to share in profit.

➤ Interest on capital.

➤ Right to interest on additional capital or loan.

➤ Right to indemnity.

➤ Rights in the firm's property.

➤ Right to leave the firm.

➤ Right not to be expelled.

➤ Right to do competitive business.

➤ Right to share in profits after retirement.

Duties of Partner

- General Duties: To carry on the business of the firm, to be just and faithful, to give true accounts and complete information.

- To indemnify the firm for the loss caused by him during the conduct of the firm's business

- To contribute to the losses of the firm in equal proportion.

- Not to assign his own share to some other party

- To attend to his duties diligently

TYPES OF PARTNERS

Active partners

Dormant partners

Nominal partners

Minor as a partners

Sleeping/sile nt partners

12 TYPES OF PARTNERS

Retiring partners

Salaried partners

New partners

Major partners

Senior partners

Quasi partners

MINOR AS A PARTNER

- A person who is a minor according to the law to which he is subject may not be a partner in a firm, but, with the consent of all the partners for the time being, he may be admitted to the benefits of partnership.

DISSOLUTION OF PATNERSHIP

- The dissolution of partnership among all the partners of a firm is called the Dissolution of the Firm (Sec. 39 of the Partnership Act, 1932). Dissolution of Partnership involves a change in the relation of partnership business, if the remaining partners resolve to continue the concern. In such cases there will be a new partnership but the firm will continue in a reconstituted form.

Methods of dissolution of firm

- Dissolution by agreement.
- Compulsory dissolution.
- Dissolution on the happening of contingencies.
- Dissolution by notice in case of partnership at will.
- Dissolution by court.
- Dissolution on account of fraud.

Contents of partnership Deed

A partnership deed may contain any matter relating to the regulation of partnership but all provisions in the deed should be within the limits of Indian Partnership Act, 1932. However, A Partnership Deed should contain the following clause:-

- **Nature of business**
- **Duration of partnership**
- **Name of the firm**
- **Capital**
- **Share of partners in profits and losses**
- **Bank Account firm**
- **Books of account**
- **Powers of partners**
- **Retirement and expulsion of partners**
- **Death of partner**
- **Dissolution of firm**
- **Settlement of disputes**