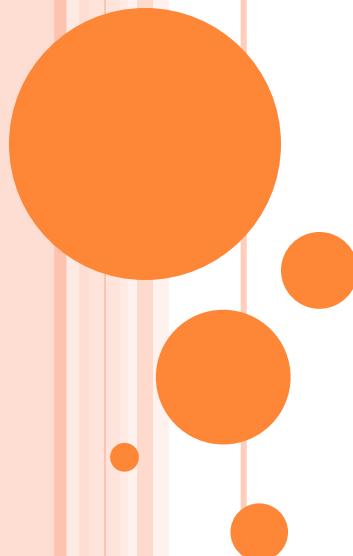


# INTRODUCTION TO MINERAL ECONOMICS

## Introduction

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# CONTENTS

- The subject of economics;
- Branches of economics;
  - Microeconomics;
  - Macroeconomics;
- Effects of macroeconomics on the Mineral Sector;
- Why study Mineral Economics?
- Objectives of the course;
- Introduction to the economic way of thinking;
- A firm and its corporate strategy



# THE SUBJECT OF ECONOMICS

- What is economics?
- It is the study of how society chooses to allocate its *scarce resources* to the *production of goods* and services in order to *satisfy unlimited wants*;
- Economics asks the following;
  - what** goods are produced,
  - how** these goods are produced; &
  - for whom** they are produced.

## CON'T ...

- Economics analyses movements in the overall economy i.e.
  - Trends in prices;
  - Output;
  - Unemployment; and
  - Foreign trade;
- It can also be defined as the study of commerce among nations;



## CONT ...

- Economics helps to explain why nations export some goods and import others;
- It analyses the effects of putting economic barriers at national frontiers;
- Economics is therefore, a science of choice;
- It is a study of how societies use scarce resources to produce valuable commodities and distribute them among different people;



# BRANCHES OF ECONOMICS

- Economics is usually divided into two main branches:
  - 1. Microeconomics
  - 2. Macroeconomics



# MICROECONOMICS

- The branch of economics that studies decision-making by a single individual, household, firm or industry;
- This examines the economic behaviour of individual units;
- These include businesses and households in face of scarcity and government interactions;



## CONT ...

- It includes the economic consequences of these decisions on other actors;
- The study is about among other things
  - how individual prices are set;
  - consider what determines the price of land, labour; and
  - enquire into the strengths and weaknesses of the market mechanism;
- Microeconomics is therefore, economics through the microscope;

# MACROECONOMICS

- This is the branch of economics that studies decision-making for the economy as a whole;
- It studies the functioning of the economy as a whole i.e.;
  - examining the economy through a wide-angle lens;
  - Macroeconomics examines how the level of growth of output are determined;



## CONT ...

- Investigates why some nations thrive while others stagnate;
- It studies the economy as a whole with a view to understanding the interaction between;
  - Economic aggregates such as national income;
  - Employment; and
  - Inflation i.e., asks about the total money supply;

# EFFECTS OF MACROECONOMICS ON THE MINERAL SECTOR

- At macro level, government sets sectoral policies (i.e. national mineral policy);
- This affects the mineral sector (positively or negatively depending on its structure and promotional aspects);
- Through its fiscal policy, government fixes taxation that may affect investment if discriminatory and uncompetitive;



## CONT ...

- Trade policies may affect the manner in which mineral products are traded e.g.;
  - Do mines owners retain all the forex?
  - Do they market through the government agencies?
- How is the foreign exchange rate fixed?
  - Free floating or government controlled?
- Do employment policies restrict expatriate workers?
- Interest rates have a bearing on the cost of capital and hence affect investment in the sector.

# WHY STUDY MINERAL ECONOMICS?

- Minerals and energy are of major importance to the world economy;
- The industry accounts for about 2% of total production and around 10% of international trade;
- When commodity prices are high, these percentages are even more significant;



## CONT ...

- Appreciating the business and economic framework in which the resources sector operates requires a suitable knowledge of;
  - Economics;
  - Financial;
  - Management;
  - Legal;
  - Regulatory;
  - Political; and
  - Social environments.

CONT ...

- Good resource sector managers must combine this with sound technical knowledge of;
  - Exploration;
  - Extraction; and
  - Processing;
- This makes mineral economics a special and exciting field of study.



## CONT ...

- It is a type of career that appeals to individuals who like to work in multidiscipline positions and see the whole picture;
- It unites knowledge of engineering / science with economics / business;
- It also allows a person the chance to see the whole situation and not just a specialized part;
- It is a field that appeals to anyone who is curious about everything.

# OBJECTIVES OF THE COURSE

- To develop specialized knowledge in the economics of natural resources and the environment;
- To develop an ability to apply engineering economy and project evaluation;
- To be capable of independent analysis using appropriate research tools and be able to effectively communicate the results of this analysis;



# Introducing the economic way of thinking



# THE 3 BUILDING BLOCKS IN THE ECONOMIC WAY OF THINKING

- **1. Scarcity and choice**
- What is meant by scarcity?
- This is the condition in which wants are forever greater than the available supply of time, goods and resources;
- What does scarcity forces us to do?
- It forces us to make choices;



CON'T ...

- **2. Model building**
- What is the purpose of an economic model?
- To *forecast* or *predict* the results of various changes in variables;
- What assumption is always made when testing a model?
- *Ceteris paribus* - A Latin phrase that means that while certain variables can change, “all other things remain unchanged”.



Identify the problem



Develop a model based  
on simplified assumptions



Collect data and  
test the model



## CON'T ...

- 3. Pitfalls / drawbacks of economic reasoning
- What are the two common pitfalls in understanding how the economy works?
  - a) failing to understand the *ceteris paribus assumption*;
  - b) confusing association with causation
- What is the difference between association and causation?
- It means that we cannot always assume that when one event follows another, the first caused the second;



# WHAT IS THE ECONOMIC PROBLEM?

Providing for people's wants and needs in  
a world of scarcity

# WHAT ARE RESOURCES?

- The basic categories of inputs used to produce goods and services;
- Resources can also be called the factors of production;



# WHAT ARE THE THREE CATEGORIES OF RESOURCES?

1. Land;
2. Labor;
3. Capital;



# WHAT IS A LAND RESOURCE?

- A shorthand expression for any natural resource provided by nature;



# WHAT IS LABOR?

- The mental and physical capacity of workers to produce goods and services



# WHAT IS CAPITAL?

- The physical plants, machinery, and equipment used to produce other goods



# WHAT IS FINANCIAL CAPITAL?

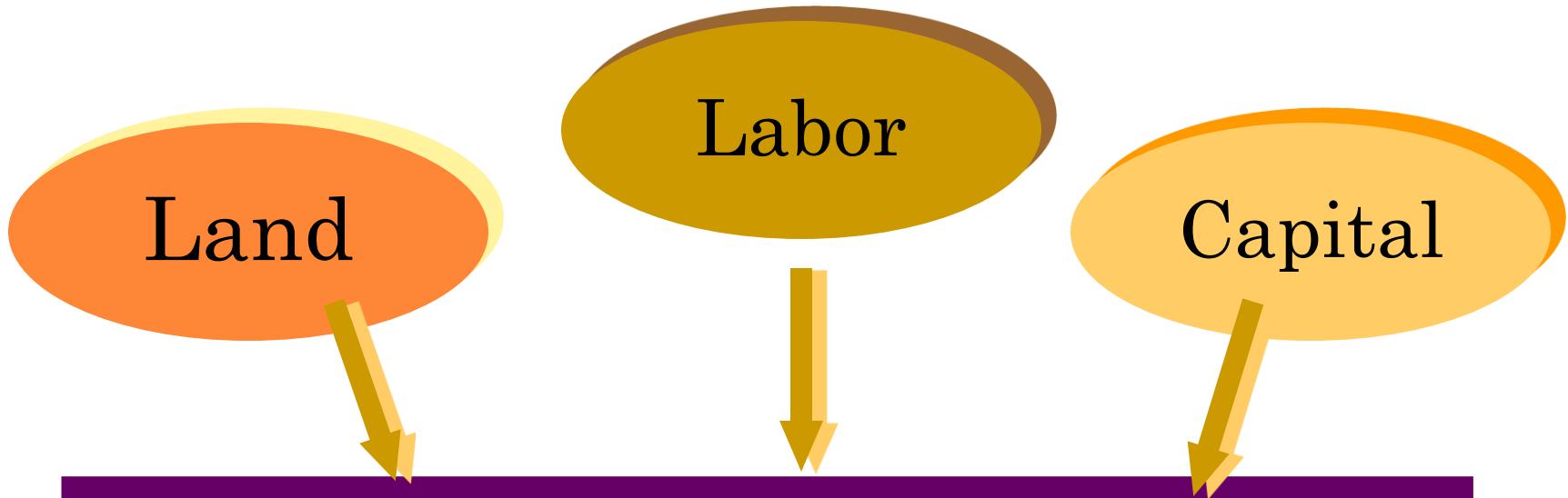
- The money used to purchase capital;



# WHAT IS ENTREPRENEURSHIP?

- The creative ability of individuals to seek profits by combining resources to produce innovative products.





Entrepreneurship organizes resources to produce goods and services

# WHY DO SOME ECONOMISTS DISAGREE?

- The answer lies in understanding the difference between positive and normative economics



# WHAT IS POSITIVE ECONOMICS?

- An analysis limited to statements that are verifiable;



# WHAT IS NORMATIVE ECONOMICS?

- An analysis based on value judgment;



# A FIRM AND ITS CORPORATE STRATEGY



# A FIRM AND ITS CORPORATE STRATEGY

- All strategies are aimed at creating competitive advantage (i.e. superior long run return on invested capital);
- In practice companies have three connected layers of strategies, each intended to fulfill a specific mission;
  1. **Corporate strategy**
  2. **Business strategy**
  3. **Functional strategy**



# CORPORATE STRATEGY

- Describes a company's overall direction towards growth by managing business and product lines.
- It include stability, growth
- The aim is to assemble a collection of individually-competitive companies in different industries;
- At the same time securing a higher level of performance due to a coincident presence in those industries;
- A firm has to pose and seek answers to a number of questions;
  - a) What products will the firm offer for sell?
  - b) Who will be the firm's customers?
  - c) Why will they buy the firm's products?

# CONT ...

- d) What should the concept of the firm's business be now and in the future?
- e) What should the firm continue to do and what should it abandon?
- f) How should the firm try to compete against its market rivals?
- g) How does the firm's economic mission mesh with market and competitive realities?



# ADVANTAGES OF CORPORATE STRATEGY

1. Keeping pace with changing environment
2. Minimizes competitive disadvantage
3. Clear sense of strategic vision and sharper focus on goals and objectives
4. Motivating employees
5. Strengthening Decision-Making
6. Efficient and effective way of implementing actions for results
7. Improved understanding of internal and external environments of business

# BUSINESS STRATEGY

- This is defined as a set of choices a firm selects that enable it to compete and win within a particular industry.
- It is what most people think of when they consider the strategies of businesses.
- The three best-known business strategies emphasize on efforts and aligning operations to provide one of different desirable benefits for customers:
  1. The **low cost competitor** gives its customers the benefit of low price.



CONT ...

2. The **differentiated competitor** creates differences that its customers value, and for which they will pay a premium.
  - Customers are willing to pay extra for the distinctive and valued differences these companies embed in their products.
3. The **focused competitor** concentrates on serving either a segment of a particular market, or may restrict its activities to a defined geographic region.

# FUNCTIONAL STRATEGY

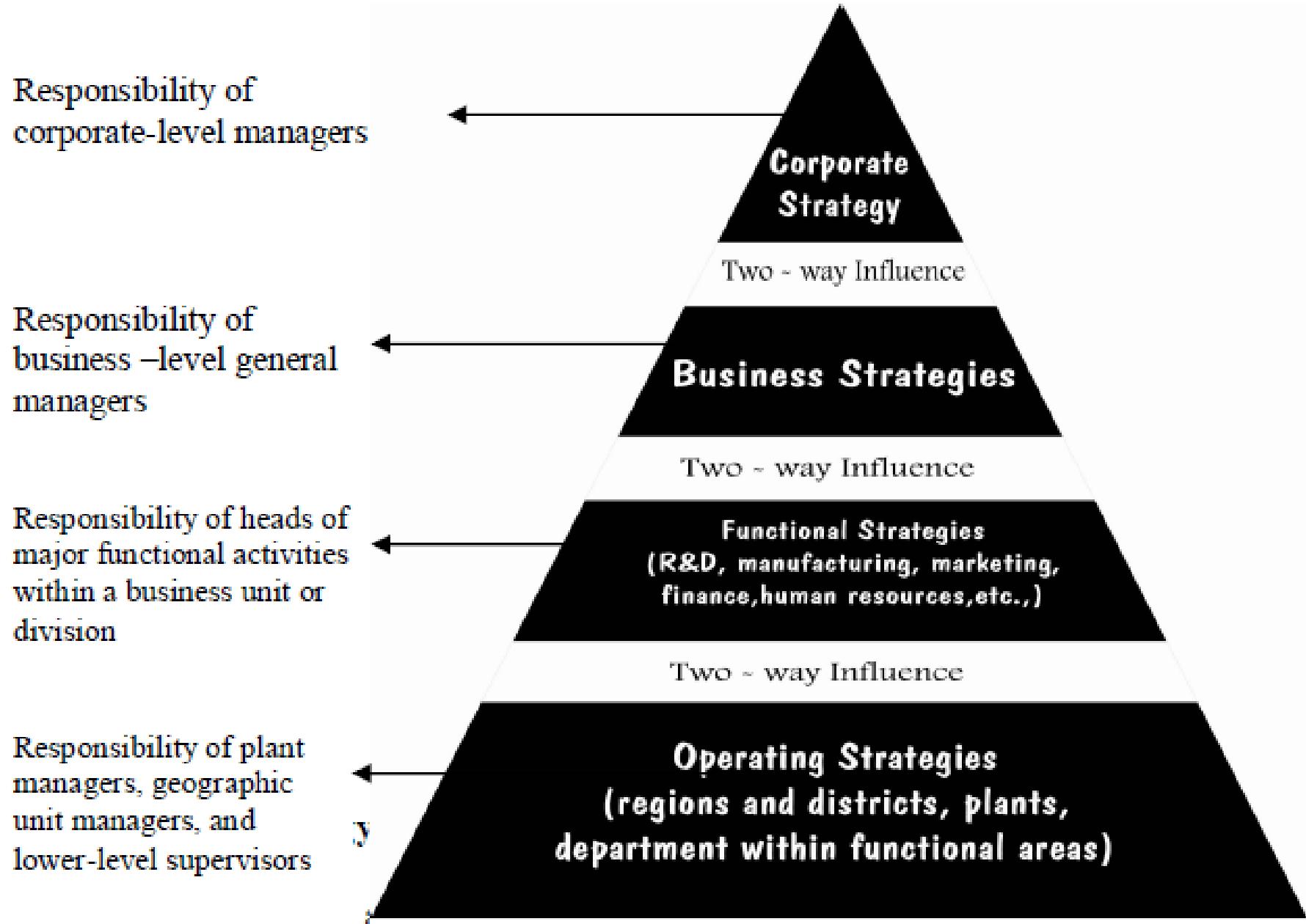
- It looks at how each of the main functional parts of a company deploy its resources (i.e. money, people, and time) in support of the corporate and business strategies?
- Functional strategies often lead themselves to implementation through tactics;



# OPERATING STRATEGY

- These are concerned with how the component parts of an organization deliver effectively the corporate, business and functional - level strategies in terms of resources, processes and people.
- They are at departmental level and set periodic short-term targets for accomplishment.





END

