Nature and Scope of Economics

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DEFINITION AND BASIC CONCEPTS
What is Economics?

ECONOMICS is the study of how individuals and society choose to allocate scarce resources to produce and distribute goods and services to satisfy unlimited wants.
What is Economics?

ECONOMICS is the study of the allocation of scarce resources to the production of alternative goods. (Curtis and Diane Eaton 1943)

It is the study of the behaviour of individuals and society in the production, distribution and consumption of goods and services using scarce resources. Parkin (1939)
What is Economics?

ECONOMICS is a social science that is concerned with the efficient use of scarce productive resources to achieve maximum satisfaction of economic wants.
Branches of economics

Micro economics

Macro economics
MICROECONOMICS is concerned with the behavior of individual units in the economy.

MACROECONOMICS is concerned with economic aggregates and the overall performance of the economy.

E.G. GDP
MICROECONOMIC AGENTS

Firms
- Produce and sell goods and services
- Buy inputs (labor, capital & raw materials)

Consumers
- Buy goods and services
- Sell inputs (labor services, loanable funds)
Micro or macro- economics?

Suzie needs to purchase some fruits but she is unsure about which fruits to buy since she does not know the price for all the fruits on the market.

The Smith family has GY$250,000 extra in household income for this month and must decide whether to go on a family vacation or renovate their property.

The government wants to increased spending on social series but can only do so for with education or health but not both.
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Scarcity . . .

. . . means that society has limited resources and therefore cannot produce all the goods and services people wish to have.
Production . . .

. . . the process of using inputs to make goods and services available.
resources . . .

. . . inputs or factors of production
These **inputs or factors of production** are ...

*Four main categories:*

1. Labor, referring to all human resources.
   ◦ is the skills, abilities, knowledge (called human capital) and the effort exerted by people in production

2. Land, referring to all natural resources, including the environment.

3. Capital, meaning the *durable* goods that have been produced and in turn are used to produce other goods and services. These are physical assets including; plant and Equipment, tools.
These **inputs** or **factors of production** are ...

4. Entrepreneurship

Those who take risks by introducing new products and new ways of making old products, developing new business and form of employment. They are called entrepreneurs or innovators and the resource they provide is entrepreneurship.

- Intermediate inputs, meaning goods that have been produced and, in turn, are *used up* in the production process.
Returns to owners of resources

Those who have or own the Resources gain as follows:

Land – Rent
Labour – Wages And Salaries
Capital – Interest
Entrepreneurship – Profits
Allocation . . .

Unlimited wants . . .

Choices...

To Get One Thing, We Usually Have To Give Up Another Thing.

- GUNS V. BUTTER
- FOOD V. CLOTHING
- LEISURE TIME V. WORK
- EFFICIENCY V. EQUITY

Making decisions requires trading off one goal against another.
Opportunity costs. . .

Opportunity cost of a decision is the value of the next best alternative foregone when resources are employed.
Decisions Require Comparing Costs and Benefits of Alternatives.

- Whether to go to college or to work?
- Whether to study or go out on a date?
- Whether to go to class or sleep in?
Basic Economic Problem

The basic economic problem is about deciding how resources will be allocated among competing wants since resources are limited and wants are unlimited.
Allocation systems.

The choices that have to be made are the resource allocation process.

An efficient resource allocation exists if society has achieved the highest possible level of satisfaction of wants and needs from the available resources and resources cannot be allocated differently to achieve any greater satisfaction (pareto optimum).

Choices are made through allocation systems.
Choices...

All Economic System Must Answer Four Basic Questions:

- WHAT GOODS AND SERVICES WILL BE PRODUCED?
- HOW WILL THE GOODS AND SERVICES BE PRODUCED?
- WHO WILL GET THE GOODS AND SERVICES?
- HOW WILL THE SYSTEM ACCOMMODATE CHANGE?

Making decisions require trading off one goal against another.
Allocation Systems..

There Are Three Types Of Allocation Systems.

- Market- Use Prices as Signals to Allocate Resources
- Command- Use Political Choice to Allocate Resources
- Mixed- Hybrid of the two

For our purposes, we shall focus on explaining how market allocation functions.
Assumptions of economics

HOW PEOPLE MAKE DECISIONS

1. People are economically rational
2. Rational people make decisions at the margin
3. People respond to incentives
4. Free Markets are the most efficient way to organize economic activity
5. Governments can sometimes improve market outcomes
1. Rational Behaviour.

Economics is grounded on the assumption of “rational self-interest.” Individuals pursue actions that will enable them to achieve their greatest satisfaction. Rational behaviour means that individuals will make different choices under different circumstances. eg. Where would you buy a case of soft drinks if you are on your way home?
2. Rational people think at the margin.

Marginal changes are small, incremental adjustments to an existing plan of action.

People make decisions by comparing costs and benefits at the margin.

- Marginal changes in costs or benefits motivate people to respond.
- The decision to choose one alternative over another occurs when that alternative’s marginal benefits exceed its marginal costs!

Consider the decision regarding studying or going out on a date.
3. People respond to incentives.

What induces a person to act?

- Government Policy and Social Objectives
- “there is no such thing as a free lunch”
4. FREE Markets are usually a good way to organize economic activity.

In a market economy,
- households decide what to buy and who to work for, and
- firms decide who to hire and what to produce.
- Price is an important allocation criterion
5. Governments can sometimes improve market outcomes.

- The key word is 'sometimes'
- Addressing property rights issue
- Market power: ability to influence outcomes
- Market failure: inefficient allocation of resources
Wk 1 Lecture 2 . . .

. . . ECONOMICS AND POLICY FORMULATION AND ANALYSIS
Two Roles of Economists

When they are trying to explain the world, they are scientists.

When they are trying to change the world, they are policymakers.
How do economists explain the world?

- Economists use models to learn about and describe the way the world works.
- Models - Abstract Generalization of reality.
- A model is a formal statement of a theory.
- Models are most often composed of diagrams and equation.
- *Tries to predict human behaviour*
How do economists explain the world?

Three ways to describe models
- Graphs
- Tables of values
- Mathematical functions (equations)

Important concepts
- Dependent and independent variables
- Linear function, intercept and slope
How do economists explain the world?

Importance of assumptions

Assumptions are critical to model formulation. They allow us to be able to

- Simplify facts about the world around us
- Identify the essential elements of the few to generalize about the many

Therefore they omit many details to allow us to see what is truly important.
How do economists explain the world?

The best model is the one that best describes reality and is the simplest

- Models must be consistent with reality
  - It will be difficult to communicate complex models or understand their implications
  - Ockham’s razor is ...
    ... the proposition that irrelevant details in theories (models) should be eliminated

- The value of a model or theory derives from its ability to explain the world around us.

- Example 1: The Circular Flow of Money and Goods
The diagram is a schematic representation of the organization of the economy. Decisions are made by households and firms. Households and firms interact in the markets for goods and services and in the markets for the factors of production. The outer set of arrows show the flow of dollars, and the inner set of arrows show the corresponding flow of inputs and outputs.
**Example of an assumption?**

*Ceteris paribus*

a Latin term that means “all other things being equal”.

By changing one variable at a time (factor) and holding all the other relevant factors constant, we can isolate the factors of interest and investigate its effect in the clearest possible way.

But *ceteris paribus* can be a problem since we live in a dynamic world and things are always changing.

*Business Week* (April 27: "What Good Are Economists Anyway?")

"Why they failed to predict the global economic crisis – and why their help is critical to a recovery."

The "reality" – predicting the future is more *art* than *science*. 
Components of a theory or economic model:

- Variables are measures that can change over time or across observations.
  - *Endogenous (within the model) versus Exogenous (independent of the model) variables*
  - *Dependent (effect) versus independent (cause) variables*

- Assumptions regarding relationships among variables.
- Implications
- Testable hypotheses
Economist as Scientist/Investigator

Economics = Science => Economist=Scientist

The Scientific method / methodological frame work for using model to explain economic phenomena

- Formulate Behavioral Hypotheses
  - Inductive logic - creates principles from observation.
  - Deductive logic - hypothesis is formulated and tested.
- Collect Data (observation or experimentation)
- Make Predictions (attention to role of uncertainty)- through model building
- Run Experiments to prove/disprove behavioral hypotheses.
The Scientific Method Entails Evaluating Whether Models And Theories Are Consistent With Empirical Evidence.

Empirical Economics - Relies Upon Facts To Present A Description Of Economic Activity.

Economic Theory - Relies Upon Principles To Analyze Behavior Of Economic Agents.
In order to understand polices and the world, economists try to discover how the economic world works and in pursuit of these goals (like all scientists) they distinguish between two types of statements.

- What is?
- What ought to be?
Positive versus Normative Analysis

- Positive statements are statements that describe the world as it is (descriptive).
- Normative statements are statements about how the world should be (prescriptive).
Examples of Positive Statements?

1. How much will a new gasoline tax raise the price of gasoline?
2. Will an increase in the minimum wage increase unemployment?
3. Why is the price of corn $4.20 per bushel?
4. How much will a drought in the corn belt raise the price of corn? Of wheat?
5. What will be the effect on Byron Brown’s pizza consumption if we take $1000 away from Tom Izzo and give it to Brown?
Examples of Normative Statements?

1. Should there be a new tax on gasoline?
2. Should there be an increase in the minimum wage?
3. Should $1000 be taken from M. Peter McPherson and given to Byron Brown?
4. What should the price of corn be?
Economists as Policy Analysts/Policymakers

- Using theories or data to analyze/formulate policies
- Policy is the creation of guidelines, regulations or law designed to affect the accomplishment of specific economic goals.
Economists as Policy Analysts/Policymakers

- Economic goals are value statements and are therefore normative.
- Goals reflect judgements made concerning what is important. For instance, Efficiency versus fairness

Importance of rational decision-making. That is, making decisions by weighing the changes in the costs and benefits.
Economists as Policy Analysts/Policymakers

Examples of goals

Most societies have one or more of the following goals, depending on historical context, public opinion, and socially accepted values:

- Economic growth,
- Economic freedom,
- Equitable distribution of income,
- Price level stability,
- Reasonable balance of trade.
Economists as Policy Analysts/Policymakers

Goals are subject to:

a. interpretation - precise meanings and measurements will often become the subject of different points of view, often caused by politics.

b. goals that are complementary are consistent and can often be accomplished together.

c. conflicting - where one goal precludes, or is inconsistent with another.

d. priorities - rank ordering from most important to least important; again involving value judgments.
Basic steps involved in formulating policy:

1. Stating goals - must be measurable with specific stated objectives to be accomplished.
2. Determining the policy options - identify the various actions that will accomplish the stated goals & select one, and
3. Implementing and evaluating the selected policy - gathers and analyzes evidence to determine whether policy was effective in accomplishing goal, if not re-examine options and select option most likely to be effective.
Errors of reasoning

Two fallacies (errors of reasoning) are common in economics and could lead to wrong conclusions.

1. Fallacy of Composition - is simply the mistaken belief that what is true for the individual, must be true for the group

2. Cause and effect - Post hoc Fallacy/ergo proter hoc - After this, because of this fallacy
   - 1. correlation - statistical association of two or more variables.
   - 2. causation - where one variable actually causes another.
   - Granger causality states that the thing that causes another must occur first, that the explainer must add to the correlation, and must be sensible.
Sources of Disagreement among Economists

- Theories about how the world works.
- Different normative views due to different values.
- Differences in Scientific Judgment (opinions regarding interpretation)
- Differences in Measuring Impact of Policy
- The problem of perception versus reality