ECO 1102 LECTURE NOTES

Lecture #1 (January 10th)
Chapter 1-Macroeconomics and life

- Economics is the study of how scarce resources are allocated among alternative uses to satisfy human wants
- Resources include labour, physical and human capital, natural resources,technology and time
  - ➢ resources are scarce: limited in supply relative to wants
  - ➢ for individuals, money and time
  - ➢ for society,labour, capital and technology
- The price of resources reflects their value/importance and is the mechanism by which they are allocated among economic agents(consumers, firms, resource owners
- Alternative uses of resources : resources may be consumed directly or used as inputs to produce various goods
- Economics is concerned only with how much people-both individuals and { }}are willing to pay for what they want

Macroeconomics & microeconomics

- The 2 traditional subfields of economics
- Macroeconomics studies how households and firms make decisions and interact in markets

For example:

- ➢ How markets power affects amounts produced and market prices, and who benefits and loses
- ➢ How tariffs affect market price sand quantities produced,consumed and imported and gain and loses

- Macroeconomics studies the economy as a whole

For example: how a tax cut can stimulate economic growth

- ➢ How excessive growth in the money supply causes inflation
- ➢ Both are closely intertwined
- ➢ The overall economy is composed of millions of households and firms
- ➢ Any policy to promote economic growth at the macro levels need to understand

Economists Study how People make decisions

For example:

- ➢ How much to work and save, what to buy and how to invest in their saving
- What resources are technology to use to produce a good
- How people interact with each other
- How prices and quantities of goods are determined
- The forces and trends that affect the economy as a whole
- Business cycles ,growth, unemployment, inflation and events in other countries
- This is the real of macroeconomics

Making decisions: everyone maximizes

- Economists assume that people (and firms)
  - Compare all available choices
  - Purposefully behave in way that achieve their goals
  - To get what they want
  - To make themselves as well or as possible
  - To maximize their well being/profits
  - This is rational behavior
  - Rational people systematically and purposefully do the best they can to achieve their objectives
- However, choices are constrained by limited resources
- The maximizing behavior of all individuals and firms in the face of constraints determines society 3 main allocation...

People face trade-offs

- All decisions involve trade offs
- People and firms compare the benefits and cost of alternative choices
- Having more money typically means working more, which leaves time for leisure
- Protecting the environment takes resources from producing
- A notable trade-off which we will see many times in many different situations in this course---- exist between efficiency and equity because these desirable goals often conflict
- Efficiency can be thought of as getting the most out of scarce resources
- Equity can be thought of as sharing resources fairly

Opportunity cost is the true cost

- The opportunity cost of something is what you must give up to gain: is the value of the best alternative
  - Is the true cost of any trade off and relevant for decision making
- Good decision making involves maximizing net benefit ben-cyst

- Choose the activity with the lowest opp cost for a given benefit

Rational people think at the margin

- Rational people make decisions by evaluating the costs and benefits of marginal changes: incremental adjustments to an existing plan
- Fixed cost are often sunk cost that cannot be recovered

Rational people respond to incentives

- An incentive is something that induces a person to behave in a certain way
- To act with the prospect of a reward or to avoid a punishment

Trade can make everyone better off

- Rather than being self sufficient people can specialize in producing one good or service, exchange it for different ones, and in so doing improve their well-being
- example . specializing in trade.
- Countries too can benefit from special in trade
- Consumers can buy imported goods more cheaply than if these goods were produced at home exporting firms can get higher prices for the goods they produce
- And consumers can access a greater variety of goods

Markets often maximize economic well-being

- A market is the means by which buyers and sellers trade a particular product
- The maximizing behavior of individuals and firms comes together in markets to determine
- What to produce for whom who gets
- Rational people seek and act on opportunities to get what they want
- This leads to efficiency

A market economy

- Allocates resources through the free, decentralized and self interested decisions of buyers and sellers as they interact in markets to determine market price
- Sets market prices that reflect each goods values to buyers and cost of production

Govt can sometimes improve market outcomes

- ➢ A key role for govt is to define and enforce property rights (policing, courts)
    - ➢ people are less inclined to work,produce,invest
- ➢ But markets can sometimes fail to allocate society's resources efficiently
- ➢ Causes of market failures

- ➢ externalities, when the production or consumption of a good affects third parties pollution imposes costs on society.

➢ Market power,small number of buyers or sellers have sustained influence on a market price-monopoly
➢ In such cases public policy may promote efficiency
➢ Govt aso oftenten alter market outcomes to promote equity-a more desirable distribution of resources
➢ typically as expensive as efficiency

The economy as a whole: productivity and growth

- Living standards vary greatly across countries and over time
  - ➢ average income in rich countries is more than 10 times the average income in poor countries
- A country's standard of living depends on productivity
  - ➢ it is the most important determinant of living standards:
  - ➢ it is measured as the amount of goods produced per hour of a workers time: GDP per capita, one key measure of macroeconomic performance
  - ➢ economic growth is the rate of change of GDP per capita
  - ➢ it depends on the capital,knowledge and skills, natural resources, and technology available to workers

The economy as a whole: inflation

- Inflation- the increase in the overall level of prices-is a second measure of macroeconomic performance
  - ➢ in the long run , inflation is almost always caused by excessive growth in the quantity of money
  - ➢ prices rise when govt prints too much money: the faster the govt creates money, the higher the inflation rate
- The cost of inflation can be huge if inflation is too high
- If p is the price level, pie is the inflation rate and n is the number of years, then the equation p1(1+ pie)^n=p2 tells us how much the price level increases over time.

The economy as a whole: Unemployment

- Unemployment- the number of people who do not have a job, but are seeking one
  - ➢ Is a third measure of macroeconomic performance

➢ Higher unemployment reduces an economy's standard of living because GDP falls

Problem: in the short run (up to 1 year)

➢ Economic policies reduces unemployment increases inflation
➢ Economic policies to reduce inflation increases unemployment
➢ there is a trade-off: policy moves unemployment and inflation in opposite directions

Example:

- an income tax cut can increase consumer demand and gdp, and reduces unemployment, but also increase overall price level

- By reducing interest rate, increases the overall price level and reduce unemployment and increase money supply can increase investments and input

The economist problem solving tool box

- Economist study the forces that determine the distribution of scarce resources to:
➢ provide insight into how markets operate
➢ predict future market behavior in response to events that occur
➢ influence market fiscal policy and monetary policy
- Theory must be combined w observation to conduct this economic analysis
- If we observe a consistent relationship between two variables, they are correlated
- If one event brings about another, then there is causation

Correlation vs causation

- Correlation without causation
➢ two events may be correlated, making it appear that a causal relationship exists
- Omitted variable
➢ two events may be correlated because both are affected by a third factor- the omitted variable
- Reverse causation

Economist Play two roles

1. As scientists, they make positive statements, which try to describe/ explain the world as it is
    - ➢ to do so , they use scientific methods, the dispassionate development and testing of theories about the world works
2. As policy advisors, they make normative statements, which try to prescribe how the world should be to improve it

➢ The govt relies on the advice of economist

➢ Economist are employed in all central departments

Models & assumptions

- Like scientist, economists use models to study economic issues
    - ➢ to draw logical conclusions
    - ➢ to predict real world behavior
- A model is a simplified representation of a more complicated realty
    - ➢ captures key features to be investigated
- Uses reasonable simplifying assumptions about reality
- Assumptions simplify the complexity of the world; male it easier to understand Example: to study international trade, we often assume two countries and two goods
    - Results are often robust

The circular flow model

- A visual model of the economy that shows how foods, inputs and money flow through markets in which households and firms trade
- Two markets
- goods and services

➢ factors of production- the resources the economy uses to produce goods and services

- land,labour, capital and natural resources

Two types of economic agents

- households

    -own factor of production and sell/rent them to firms in exchange for income

    - buy and consume goods and services
- Firms
    - buy/hire factors

- Micro focus: how households and firms interact in the markets for goods and services
- Macro focus: when applied to a nation, this model defines GDP , the foundation of macroeconomics
- What the diagram commits:

➢ the gov't : collects taxes, buys goods and services

➢ the financial system: watches savers supplies of funds with bowers demand for loans

➢ The foreign sector: trade goods and services, financial assets, and currencies within the country residents

➢ The environment: an input in production, consumption of goods

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Lecture 2 (January 15th)

Chapter 7 - Measuring the wealth of Nations

- Economic growth has increased living standards over time
  - ➢ GDP per capita:
  - the measure used most often to measure living standards
  - gross domestic product divided by country pop
- But is gross domestic product and how its calculated/
  - ➢ is the value of all economic activity within a country
- It is the most common metric used to measure the size of an economy
- They stem of national accounts
  - there are 3 ways to measure GDP

- GDP defined:
  - ❑ The market of all final goods and services produced within a country in a given period of time

- All goods are valued at their market prices and measured in the same units(eg in canadian dollars)
  - ➢ Things that don't have a market value are excluded, as is the underground economy
- Goods and services include both tangible goods, and intangible goods
- Final goods and services are those intended for the end user

➢ the value of the intermediate goods- gods used in the production of other goods

- already included in the value of the good

- Are excluded in calculating GDP

- Only newly produced goods are included
  - ➢ not goods produced in the past
    - Although services relating to existing houses sales are included
  - ➢ Goods produced, but not sold are added to inventories

- All production that occurs w/in a country's borders,whether done by its own citizens or by foreigners located there

- The time period is usually over a year
- The circular flow diagram tells us that GDP measures:
  - ➢ total production in an economy
- The total income of everyone in the economy
  - ➢ the total expenditure
- For the economy as a whole, income equals expenditure because every dollar a buyer spends is a dollar of income for the seller
- Thus:

➢ National income= national expenditure=national production

<u>The expenditure approach to measuring GDP</u>

- Consider GDP as total spending
- There are four components of spending

- consumption
- investment
  - ➢ goods that provide for future consumption

- Government purchases
  - ➢ All government spending

- Net exports
  - ➢ Exports- goods produced domestically -count; imports -goods produced elsewhere-do not
  - Theses four components add up to GDP

Consumption

- Total spending by households on goods and services
- - goods include:
  -Durable goods such as cars and appliances
  - non-durable goods such as food and clothing

➢ Services include intangible items such as haircuts and health care

  - Note on housing cost:
    - For renters,consumption includes rent payments
    - For homeowners consumption includes the imputed rental value of the house

- But not the purchases price of houses nor mortgage payments
- The purchase of new houses is treated as investment spending
- The purchase of previously built houses it is not part of GDP in the year of resale

Investment

- Total spending by businesses on goods that will be used in the future to produce more goods and services
- Includes spending on :
  - Capital equipment:machines, equipment
  - structures(factories, offices)

➢ including the purchase of new houses by households because houses provide consumption services over many years

  - inventories(goods produced, but not yet sold)

- Note: investments does not mean the purchase of financial assets like stocks and bonds

Government purchases

- Include all spending by all levels of govt
  - ➢ all consumption-like spending
- Exclude transfer payments to persons(pension plan benefits

➢ transfer payments are not made by the government in exchange for currently produced goods or services

➢ they instead include in consumption spending by household

Net exports

- Exports: foreign spending on an economy goods and services
- Imports: these portions of consumption,investment, and government on goods and services that are produced abroad
- Net exports: exports-imports
    - Imports are subtracted from exports because

The value added to the approach

- A third approach used to measure the value of economic output
➢ the value added approach, the expenditure approach and income approach all yield the same CAD value and GDP
➢ The value added approach calculates the value that each transaction adds to the economy
- And so determine how much of total spending
- It helps:
➢ avoid double counting
➢ calculate how the resale of existing goods contributes to GDP

Other measures of income

Gross national product

➢ all final goods and services produced by a country's residents, regardless of where they live in the world

Net national product

➢ GNP minus depreciation
- also called capital consumption allowance

National income

- MNP minus sales taxes plus subsidies
- Personal income

➢ national income
- Minus retained earnings, corporate income tax and payroll taxes
-Plus transfers and govt bind income

- Disposable personal income
- Personal income - personal income taxes

Real versus nominal GDP

- Inflation can distort economic variables like gdp so we have two versions of gdp
    - ➢ one is corrected for inflation the other is not
- Nominal gdp values output using current prices
- ➢ it's not corrected for inflation
- ➢ nominal GDP grows both because prices rises and because the economy
- ➢ produces more goods
- ➢ The increase overstates the increase in society's well-being because part of these increases
- ➢ we need a way to take out the effects of inflation to see how much people incomes are growing in terms of their purchasing power

- Real GDP values output using the prices of a base year so prices do not change