Macroeconomics:
An Introduction (week 2)

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Topics

- **Tools for understanding macroeconomic issues**
- **Tradeoff between macroeconomic objectives**
- **Basic concepts in understanding economic activities**

Tools for understanding macroeconomic issues

- **Basic tools for investigating macroeconomic phenomena**
  - **Empirical tools**
  - **Theoretical tools**
  - **Historical tools**

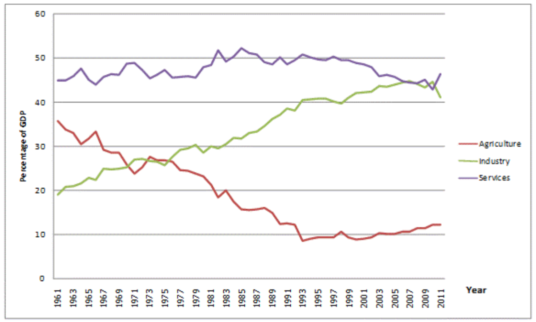
Tools for understanding macroeconomic issues

- **Empirical tools**
  - **Empirical = observation and recording of specific happenings in the world**
  - **In economics, most empirical analysis are done quantitatively (through analysis of numbers)**
    - **Recording of how quantitative value of a variable change through time (= time series)**
    - **Also, recording of relationships between variables (regression)**
      - **This is about finding correlation between variables**
      - **But needs to be careful that correlation does not imply causation**

Tools for understanding macroeconomic issues

- **Empirical tools (time-series)**

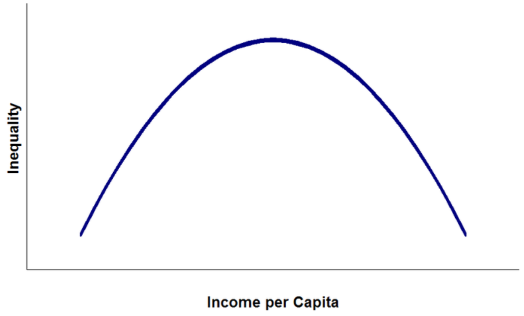
Share of GDP in Thailand (Percentage) from 1961-2011



Data Source: The World Bank 2013 (http://data.worldbank.org/country/thailand)

Tools for understanding macroeconomic issues

- **Empirical tools (regression)**
  - **Kuznet Curve**



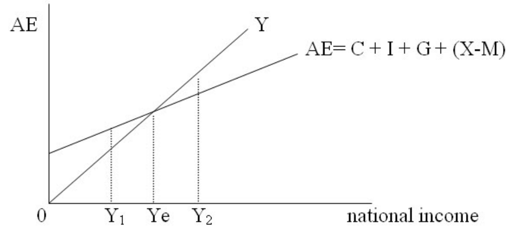
Tools for understanding macroeconomic issues

- **Theoretical tools**
  - Quantitative analysis may not produce enough insights on "how things work"
  - Economists construct "economic models" to do such a task
    - A model, proposing the nature of relationships between variables, is based on thought-experiments.
    - Assumptions are outlined, and through careful reasoning, a mathematical explanation is built.

Tools for understanding macroeconomic issues

- **Theoretical tools**
  - Economic Model

    Keynesian model of income determination



Tools for understanding macroeconomic issues

- **Historical tools**
  - In addition, knowledge of historical events also forms another route in which economic knowledge can be developed.
  - This route can be indispensable in giving broader insight on economic phenomena. This is because it can provide a connection between economic, social, and political factors.

Tools for understanding macroeconomic issues

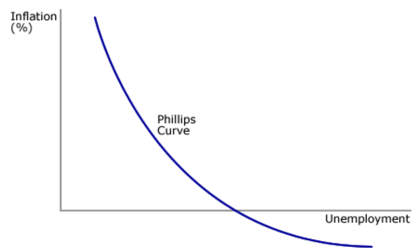
- **Historical tools**
  - **Example: "Kicking Away the Ladder" (Ha Joon Chang, 2002)**
    - **Historically, the Western developed nations – particularly the US and the UK, had used trade protections and subsidies to support the growth of their industries. Such policies, in place throughout 18-19th century, contributed to its powerful economic position in the present. It seems, therefore, contradictory that these are the nations that ask developing countries to develop through "trade-liberalisation.**

Tradeoff between macroeconomic objectives

- **The concept of trade-off is central to economics**
  - **Remember the Production Possibility Frontier (PPF)?**
- **What about the trade-off in macroeconomics?**
  - **Employment and inflation**
  - **Energy and environment**
  - **Efficiency and equality**

Tradeoff between macroeconomic objectives

- **Trade off in employment and inflation**
  - **Phillips Curve**



Tradeoff between macroeconomic objectives

- **Trade off in efficiency and equity**
  - **Programs to promote equality comes at the expense of distorting incentives to work and, thus, reduce efficiency in the economy.**
    - **For example: unemployment benefits**
- **But we have to keep in mind that several notions of "trade-off" are contestable.**
  - **For example, the history of Thai unemployment and inflation rates.**

Basic concepts in understanding economic activities

- **4 essential macroeconomic activities:**
  - **Resource maintenance**
  - **Production**
  - **Distribution**
  - **Consumption**

4 essential macroeconomic activities

- Resource maintenance= the activity of tending to, preserving, or improving the stocks of resources that form the basis for the preservation and quality of life.
  - Capital stocks = a quantity of any resource that is valued for its potential economic contributions
  - Resource maintenance = the management of capital stocks so that their productivity is sustained

4 essential macroeconomic activities

- Types of capital
  - Natural capital
  - Manufactured capital
  - Human capital
  - Social capital
  - Financial capital





Important concepts on resource maintenance

- Stock VS Flow
  - Stocks = something whose quantity can be measured at a point in time
    - For example, the volume of water in a bathtub
  - Flow = something whose quantity can be measured over a period of time
    - For example, the amount of water flowing into a bathtub over a minute
- Flows change the level of stocks
- Most macroeconomic variables can be categorised into stock or flow variables

Important concepts on resource maintenance

- Stock VS Flow

Examples

Income = flow variable
Wealth = stock variable
Investment = flow variable
Capital = stock variable

Important concepts on resource maintenance

- Investment VS Depreciation
  - Investment is primarily the activity of resource maintenance
  - Depreciation occurs when a capital stock decline in quantity or quality
    - Manufactured assets, for example, wear out and lost their usefulness overtime.

  - Resource maintenance activities help to keep up the quantity and quality of important capital stocks.

4 essential macroeconomic activities

- Consumption
  - The final use of a good or service
  - Consumption is frequently contrasted with investment, which refers to resource maintenance activities.

4 essential macroeconomic activities

- Production = conversion of resources into goods and services.
- Production converts "inputs" into "outputs"
  - Inputs include materials that become part of the produced good, supplies that are used up in the production process, and labour time.
  - But there are flow of services, arising out of capital stocks, that will not be used up. These include human and social capital.

Important concepts on production

- “Nominal VS. Real” Value
  - In economics, “nominal” value refers to the value expressed in monetary terms, i.e. in the units of a currency.
  - “Real” is a value that is adjusted from the nominal value to remove the effect of a change in price over a period of time.
  - For example, the “nominal” value of outputs produced by firm A may increase from the previous year. But if the rise in value is caused solely by the change in price level. The real value of the outputs remains the same.

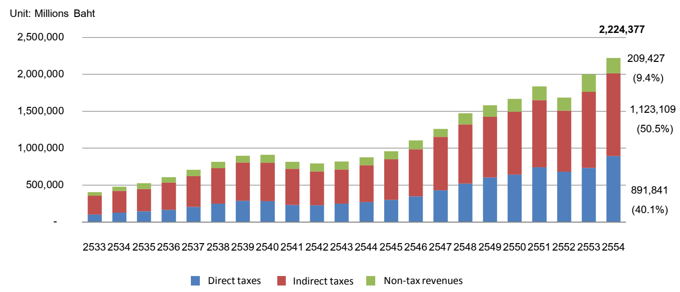
4 essential macroeconomic activities

- Distribution
  - the allocation of products and resources among people
- In contemporary economies, two forms of activities can be distributive.
  - Exchange = trading one thing for another.
  - Transfer = the giving of something with nothing specific in return
    - Transfer can be "in-kind", referring to transfer in non-monetary form

Important concepts on distribution

- Taxes VS Transfers
  - Taxes is the main venue for the government to raise revenue. Taxes can be raised from the government charging a proportion of income, or the value of transactions (sales) that occur.
  - Transfer are flow of money, goods, or service from the government to its people. It forms an important part of the roles of a government in providing welfare.
  - We can think of transfer as “negative” taxes.

The Revenue Structure, Thai Government, 2533-2554 BE



Direct taxes: personal and corportate income taxes

Indirect taxes: VAT and excise taxes

Non-tax revenues : government services fees, and revenue from state-own enterprises

Important concepts on distribution

- Macroeconomists are usually particularly interested in who receives the income generated by production, and the roles the government plays in economic distribution.
- Who receives income? Labour VS Capital
  - Labour income is compensation received by workers in the form of wages, salaries, and fringe benefits
  - Capital income include rents, profits, and interest
- Questions usually arise “whether a distribution between these types of income is justified”

Important concepts on distribution

- Labour VS Capital

Important concepts on distribution

- Measurement of income distribution
  - 20:20 Ratio (income of the richest 20% divided by that of the poorest 20%)
  - Lorenz curve = a line used to portray an income distribution, drawn on a graph with percentiles of household on the horizontal axis and the cumulative percentage of income on the vertical axis.
  - Gini ratio = a ratio of the area between Lorenz curve and the diagonal line to the total area under the diagonal line.

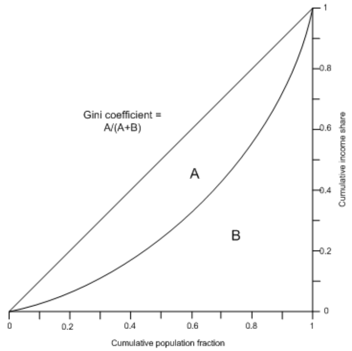
Gini ratio (or coefficient) = a/a+b

If the gini is higher, the economy is more unequal

Thailand Gini Coefficient (world bank)
1990 = 45.27
1996 = 42.9
2000 = 42.84
2006 = 42.35
2009 = 40.0

Other countries
Cambodia 2009 = 36.0
South Korea 2007= 31.3

Lorenz Curve



Important concepts on distribution

- Wealth inequality -- the distribution of wealth, i.e. what people own in assets or debt
  - This tends to be much more unequal than distribution of income.

The 3 spheres of economic activities

- Economic activity take place in three major sphere:
  - Households
  - Firms
  - Government

The 3 spheres of economic activities

- Major economic activities by households
  - Childbearing and child raising. Taking care of elderly.
  - Making decisions to investment in skills and education
  - The allocation of consumption spending and savings.
  - Decisions regarding the supply of labour.

The 3 spheres of economic activities

- In economics, firms are generally seen as exist to produce goods and services.
  - Competitions and motives for profit are seen by economists as major driving forces to make firms efficient in their production.
    - For example, they will try to reduce cost and create innovations.
  - Firms, however, may have interests that are not aligned with the overall social well-being. For example, firms may not act to minimize negative externalities.

The 3 spheres of economic activities

- Activities of a government organisaiton can be divided into (1) regulation, and (2) direct provision
  - Regulation -- setting rules or standards for the actions of other economic entities
  - Direct provision -- taking on economic activities, especially the production of public goods.
- Government, however, is often known for being inefficient.

The 3 spheres of economic activities

- Government
  - Public-purpose sphere includes government as well as non-profit organisations.
  - These organisations exist for purposes related to the provision of public goods.
    - Their goals can be that of providing security, relieving poverty, providing health care and education, and regulating markets.