Lecture Note 2

BEC1118: Macroeconomics 1

National Income Accounting (Measuring Output)

Gross Domestic Product (GDP)

Macroeconomists are interested in total production in the economy, so it is essential that we create a measure of total output. This measure is called GDP. ***GDP is the total market value of all final goods and services produced in a country in a given year.*** Three things to note about this definition of GDP:

- ***total market value.*** We add up the dollar value of all the stuff produced in the United States. This is because producing a car is way different that producing a haircut or a can of soup, but by converting everything to its dollar value we have a uniform measure.
- ***final goods and services***. We only count final products ready to be consumed, NOT products used to make other products. So a car will be counted in the GDP but the steel used to make the car is not counted separately. Why? Because the value of the car already reflects the value of the steel, rubber, plastic,etc. that goes into it.
- ***produced in a country.*** Thailand GDP counts only those goods and services produced in the physical borders of Thailand. So Toyotas made in Samut Prakarn Province are counted, even though Toyota is a Japanese company. However, automobile parts made by a Thai company in Vietnam do NOT count in GDP, even though the parts are made by a Thai manufacturer. Where the good or service is produced is important.

Nominal GDP vs. Real GDP

In measuring GDP, we use prices to measure the value of good and services produced. Using the current prices to value current production is known as **nominal GDP**. The problem with nominal GDP is that a change in nominal GDP can be due to either (1) a change in the production of goods and services, or (2) a change in the prices of those goods and services. So an increase in prices will cause nominal GDP to rise, even if production has not changed at all. This gives a misleading picture of how well our economy is doing. It also makes it difficult to compare production from year to year, since prices change every year.

To address the price problem, we also construct a measure of GDP that takes price changes into account. **Real GDP** values goods and services in any given year by using the prices of a set **base period**. By holding prices constant, real GDP measures only the changes in production from year to year. Changes in real GDP are used to measure economic growth.

Measuring GDP: The Expenditure Approach

So how does the Thai government go about measuring such a huge quantity? One approach is to add up expenditures on goods and services in each sector of the economy:

- ***Consumption (C).***
- ***Investment (I)***. Plants, equipment and inventory of businesses. This is one of the most volatile components of GDP.
- ***Government Spending (G)***: the government purchases of goods and services are counted here. This does NOT count transfer payments, such as welfare, since this just transfers income and does not represent production of goods and services.
- ***Net Exports (X - IM)***. Net exports is exports minus imports. So we add in those goods and services produced in Thailand and sold abroad but we substract the good and services purchased by consumers, businesses, and governments that were not made in Thailand.

Putting all of the expenditures together we have the identity

$$GDP = C + I + G + X - IM$$

What does GDP NOT measure?

So GDP is an important measure of the economic power and health of a nation. But GDP does not tell the whole story in terms of the well being of a nation. Here are a few things GDP leaves out:

- **Other social indicators**. These include crime, illiteracy, life expectancy, infant mortality. Although these things are related to GDP, the connection is not perfect:
- **Equity**. A large GDP per capita does not mean that the wealth of a nation is shared equally. In some nations, the GDP is distributed for the most part among a small elite class, leaving the rest of the nation in poverty.
- **Environmental issues.** A high rate of production may have disastrous environmental consequences. Brazil may increase its GDP by cutting down rain forests for the timber, but very few of us would say that is a good thing.
- **The underground economy**. The GDP actually measured will fail to capture any goods and services that are not reported to the government. These include illegal activities, like marijuana cultivation, cocaine sales, and tax evasion, such as under-reporting tip income, or cash-paid babysitting.
- **Nonmarket work**. This includes transactions for which people are not paid. When I do my family's laundry, that is not counted in GDP. But if I paid someone to do my laundry, it would count in GDP. The exclusion of homemaking really understates the services produced in the United States.

So while GDP is a crucial measure of the size and health of an economy, keep in mind it is not the ONLY measure of well-being.