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MACRO ECONOMICS

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June, 2012 Macro Economic 2(A+B) (Q-2)

What do you mean by national income? What are the methods of measuring national income? Explain any one of them

What is Meant by National Income ?

National income refers to the monetary value over a period of time of the output flow of goods and services produced in an economy.

The Uses of National Income Statistics

Measuring the level and rate of growth of national income (Y) is essential to keep track of:

- The rate of economic growth
- Changes to living standards
- Changes to the distribution of income b/w groups

Gross Domestic Product

The total value of output in an economy is the Gross Domestic Product (GDP) and is used to measure economic activity changes. GDP encompasses the production of foreign-owned enterprises located in a country following the foreign direct investment.

There are three different ways to calculate GDP that should all add up to the same amount:

The national output is equal to national expenditure (Aggregate demand) which in turn is equal to national income.

The equation for GDP using this approach is

$$\text{GDP} = C(\text{Household spending}) + I(\text{Capital investment spending}) + G(\text{Government spending}) + (X(\text{Exports of Goods and Services}) - M(\text{Imports of Goods and Services}))$$

The three different ways to measure GDP are - Product Method, Income Method, and Expenditure Method.

These three calculating GDP methods yield the same result because National Product = National Income = National Expenditure.

1. The Product Method:

In this method, all goods and services produced during the year in various industries are added up. This is also known as value-added to GDP or GDP at the sector of origin's cost factor. India includes the following items: agriculture and allied services; mining; development, construction, the supply of electricity, gas, and water, transport, communication, and trade; banking and insurance; real estate and property ownership of residential and commercial services and public administration and defence and other services (or government services). It is, in other words, the amount of the added gross value.

2. The Income Method:

In a nation that produces GDP during a year, people earn income from their jobs. Thus the sum of all factor incomes is GDP by revenue method: wages and salaries (employee compensation) + rent + interest + benefit.

3. Expenditure Method:

This approach focuses on products and services generated during one year within the region.



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GDP is subtracted from the portion of consumption, investment, and government spending expended on imports. Likewise, all manufactured components, such as raw materials used in the manufacture of products for sale, are also exempt.

Thus GDP by expenditure method at market prices is net export, which can be positive or negative.

1. Explain Expenditure Method for Measuring National Income?

Ans - National company can be measured by 3 different methods -

(i) Product Method (ii) Income Method and (iii) Expenditure Method.

The total production value produced in a given period is the gross domestic product (GDP). This approach calculates the economy's gross domestic spending. It is made up of two elements, viz—expenditure on consumption and spending on investment. Consumption spending includes spending on consumer goods and services by the household sector and spending on corporate and public authorities' consumption. Investment spending applies to fixed capital investment, such as plants and equipment, offices, etc.

To sum up, national income is calculated in this system as a flow of expenditure. GDP is the sum-total of spending on private consumption. Spending on government consumption, gross capital (government and private), and net exports (Export-Import).

(Q-2) B Distinguish between the following. 1. Gross Domestic Product and Gross National Product 2. National Income at Market Price and National Income at Factor Cost. June, 2014 Macro Economic 01(A+B) (Q-1) Define GNP and GDP Explain the difference between GNP & GDP when GNP is higher than GDP? When GNP is lower than GDP?

National income is a macroeconomic variable that helps in determining the economic stability of a nation. It represents the total income accrued to a country from all the economic activities in a year.

The most preferred way of calculating the national income involves two concepts, namely GDP and GNP. GDP is known as gross domestic product and GNP is known as gross national product.

What is GDP?

GDP refers to the gross domestic product and is a widely used measure to determine the size of the economy of a nation. It represents the total amount of goods and services produced in a country within a financial year.



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The GDP takes the purchases of newly produced goods and services for a particular period into account. In calculating the GDP, the focus is on the total value of goods and services produced within the country borders, irrespective of whether the value addition is due to the residents or non-residents of the country.

Also read about GDP and Welfare

There are two methods of calculating GDP. They are:

1. Expenditure approach
2. Income approach

The expenditure approach takes into account adding up all the amount spent on goods and services during the period.

$$GDP = C + I + G + (X - M)$$

Where,

C = Consumption spending

I = Business investments (Capital equipments, inventories)

G = Government purchases

X = Exports

M = Imports

Income approach: Under the income approach, the GDP is calculated by adding up three factors.

$$GDP = \text{National income} + \text{Statistical discrepancy} + \text{Capital consumption allowance}$$

Also check: MCQ on GDP Deflator

What is GNP?

GNP is known as gross national product and represents the total value of goods and services produced by the residents of a country during a financial year.

It takes the income earned by the citizens of the country present within or outside the country into consideration. It excludes the income generated by the foreign nationals who are residing in the country. It can be calculated as:

$$GNP = GDP + NR - NP$$

Where,

GDP = Gross domestic product



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NR = Net income receipts

NP = Net outflow to foreign assets

Let us go through the most crucial differences between GDP and GNP in the following table:

GDP	GNP
Definition	
The value of goods and services produced within the geographical boundaries of a nation in a financial year is termed as GDP.	The value of goods and services produced by the citizens of a nation irrespective of the geographical limits in a financial year is known as GNP.
What Does It Measure?	
It measures only the domestic production.	It measures only the national production.
Emphasis	
It emphasises on the production that is obtained domestically.	It emphasises on the production that is achieved by the citizens living in different nations.
Highlights	
It highlights the strength of the country's economy.	It highlights the contribution of the residents to the development of the economy
Scale of Operations	
Local scale	International scale
Excludes	
The goods and services that are being produced outside the economy are excluded.	The goods and services that are produced by the foreigners living in the country are excluded.

This article brings out the major differences between the two important concepts of GDP and GNP that will help to build a strong foundation for the students. Stay tuned to our website for more such knowledge updates.



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Dec, 2012 Macroeconomic 3(A+B) Dec,

2013 Macroeconomic 6(A) (Q-3)

A Elaborate deficit financing and its sources? Does deficit financing lead to inflation?

Deficit financing is a method of meeting government deficits through the creation of new money. The deficit is the gap caused by the excess of government expenditure over its receipts. The expenditure includes disbursement on revenue as well as on capital account. The receipts similarly comprise revenues on current account as well as capital account. Creation of new money to meet the deficit in use for a long time. Deficit financing is a very delicate tool of resource mobilization. It is liberally used by a hard pressed government for raising revenue.

The main reasons for the use of deficit financing are:

1. Covering the Receipt-Expenditures Gap:

The government receipts through taxes and other sources are not adequate to finance the development expenditures. The government has not been able to fill the gap between the total receipt and the total expenditure by levying new taxes or increasing the rates of existing tax beyond a certain limits to avoid displeasure of the people, the government has been choosing an easy path of deficit financing or creation of new currency.

2. Low Savings:

The people in LDCs are consumption-oriented. Due to high propensity to consume, the domestic saving rate as a percentage of GNP is very low. As such the government is compelled to use deficit financing as an instrument of economic development.

3. Inadequate Banking Facilities:

The financial institutions which mobilize savings particularly in the rural areas are inadequate. The government is therefore, not able to mobilize resources to the desired extent.

4. Rapid Growth of Population:

The rapid rate of population growth is swallowing up whatever little economic progress is made. The government is anxious to speed up the economic development in the shortest possible period of time and is using the method of deficit financing.



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5. Uncertainty in Getting Foreign Assistance:

Though the LDCs have been receiving foreign assistance yet the amount of aid received has always remained uncertain. The government for increasing the rate of investment and coming out of the vicious circle of poverty has no other way but to resort to deficit financing. It is said that deficit financing is inherently inflationary. Since deficit financing raises aggregate expenditure and, hence, increases aggregate demand, the danger of inflation looms large. This is particularly true when deficit financing is made for the persecution of war. This method of financing during wartime is totally unproductive since it neither adds to society's stock of wealth nor enables a society to enlarge its production capacity. The end result is hyperinflation. On the contrary, resources mobilized through deficit financing get diverted from civil to military production, thereby leading to a shortage of consumer goods. Anyway, additional money thus created fuels the inflationary fire.

June, 2015 (Macroeconomic) (Q-2)

A What is the difference between intermediate good & final goods and Services?

Final goods are referred to as those goods which do not require further processing. These goods are also known as consumer goods and are produced for the purpose of direct consumption by the end consumer.

Intermediate goods are referred to as those goods that are used by businesses in producing goods or services. These goods are also known as producer goods.

In other words, intermediate goods are used for producing final goods or consumer goods or it can be said that they act as inputs in other goods and constitute the final goods as an ingredient.

Let us now look into the points of difference between the final goods and intermediate goods.

Final Goods	Intermediate Goods
Definition	
Final goods are those goods that are manufactured to be consumed directly by the consumer	Intermediate goods are referred to as those goods that are used for producing final goods
Nature	
Final goods are finished goods	Intermediate goods are goods that are partly



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	prepared and can be referred to as unfinished goods or partly finished goods
Uses	
Final goods are available for consumption or can be used for capital formation	Intermediate goods are available for reselling by the firms for generating profit
Processing needed	
Final goods are ready to be consumed and therefore do not require any further processing	Intermediate goods require further processing in order to be consumed
Impact on National Income	
Final goods are considered to be a part of national income and have an impact on the national income	Intermediate goods are not included in the national income and therefore have no impact
Demand for goods	
Final goods have inherent demand or direct demand	Intermediate goods do not have natural demand and the demand is derived based on user preference



Dec , 2017 (Macroeconomic) (Q-3)

How are monetary tools used to control unemployment and inflation?

What is Monetary Policy?

Monetary policy is an economic policy that manages the size and growth rate of the money supply in an economy. It is a powerful tool to regulate macroeconomic variables such as inflation and unemployment.

These policies are implemented through different tools, including the adjustment of the interest rates, purchase or sale of government securities, and changing the amount of cash circulating in the economy. The central bank or a similar regulatory organization is responsible for formulating these policies.

Objectives of Monetary Policy

The primary objectives of monetary policies are the management of inflation or unemployment, and maintenance of currency exchange rates.

1. Inflation

Monetary policies can target inflation levels. A low level of inflation is considered to be healthy for the economy. If inflation is high, a contractionary policy can address this issue.

2. Unemployment

Monetary policies can influence the level of unemployment in the economy. For example, an expansionary monetary policy generally decreases unemployment because the higher money supply stimulates business activities that lead to the expansion of the job market.

3. Currency exchange rates

Using its fiscal authority, a central bank can regulate the exchange rates between domestic and foreign currencies. For example, the central bank may increase the money supply by issuing more currency. In such a case, the domestic currency becomes cheaper relative to its foreign counterparts.



Tools of Monetary Policy

Central banks use various tools to implement monetary policies. The widely utilized policy tools include:

1. Interest rate adjustment

A central bank can influence interest rates by changing the discount rate. The discount rate (base rate) is an interest rate charged by a central bank to banks for short-term loans. For example, if a central bank increases the discount rate, the cost of borrowing for the banks increases.

Subsequently, the banks will increase the interest rate they charge their customers. Thus, the cost of borrowing in the economy will increase, and the money supply will decrease.

2. Change reserve requirements

Central banks usually set up the minimum amount of reserves that must be held by a commercial bank. By changing the required amount, the central bank can influence the money supply in the economy. If monetary authorities increase the required reserve amount, commercial banks find less money available to lend to their clients and thus, money supply decreases.

Commercial banks can't use the reserves to make loans or fund investments into new businesses. Since it constitutes a lost opportunity for the commercial banks, central banks pay them interest on the reserves. The interest is known as IOR or IORR (interest on reserves or interest on required reserves).

3. Open market operations

The central bank can either purchase or sell securities issued by the government to affect the money supply. For example, central banks can purchase government bonds. As a result, banks will obtain more money to increase the lending and money supply in the economy.



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Dec , 2017 (Macroeconomic) (Q-4)

Explain with example the difference between economic development and economic growth?

Economic Growth	Economic Development
Economic Growth is the positive change in the indicators of economy.	Economic development is the quantitative and qualitative change in an economy.
Economic Growth refers to the increment in amount of goods and services produced by an economy.	Economic development refers to the reduction and elimination of poverty, unemployment and inequality with the context of growing economy.
Economic growth means an increase in real national income / national output.	Economic development means an improvement in the quality of life and living standards , e.g. measures of literacy, life-expectancy and health care.
It refers to an increase over time in a country's real output of goods and services (GNP) or real output per capita income.	Economic development includes process and policies by which a country improves the social, economic and political well-being of its people.
Economic growth focuses on production of goods and services.	Economic development focuses on distribution of resources.
Economic growth relates a gradual increase in one of the components of GDP; consumption, government spending, investment or net exports.	Economic development relates to growth of human capital indexes and decrease in inequality.
Economic growth is single dimensional in nature as it only focuses on income of the people.	It is concerned with how people are affected. Economic development is multi-dimensional in nature as it focuses on both income and improvement of living standards of the people.

Dec , 2017 (Macroeconomic) (Q-6)

Why is the aggregate demand curve slopes downward?

Why is the AS curve upward sloping in the short-run & vertical in long run?


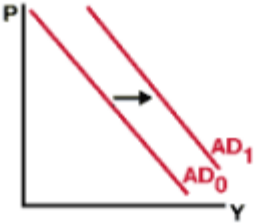
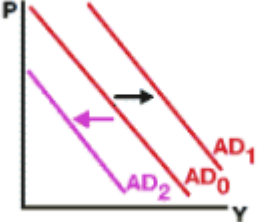
^a The aggregate demand (AD) curve slopes downward because output decreases as the price level increases.

^a Increases or decreases in autonomous spending components can shift the AD curve. Through policy changes, the government can also shift the AD curve.



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<p>Building a model</p> <p>Objective Build a predictive model to explain environmental changes in the business cycle.</p> 	<p>Recall the equilibrium equation: $Y = C + I + G + NX$. When the price level increases:</p> <ol style="list-style-type: none"> Households' real wealth shrinks and consumer spending (C) decreases; meanwhile, the demand for money increases, and the interest rate begins to rise. Investment spending (I) decreases. Foreign demand for domestic goods falls, and foreign spending (NX) decreases.
<p>Increasing the AD curve</p> 	<p>The graph on the left shows an outward shift of the aggregate demand curve. If consumers, businesses, or foreigners decide to increase their spending, the AD curve will shift outward. Government policy variables can also shift the AD curve. If the government decides to increase its spending, the AD curve will shift outward. A tax cut provides consumers with more disposable income, and they may decide to increase their spending. Increasing the money supply will lower the interest rate, and businesses will find investments more profitable and may decide to increase their spending.</p>
<p>Increasing and decreasing the AD curve</p> 	<p>Now suppose that the channels that increased aggregate demand are reversed. Work through the exercises to decrease aggregate demand and shift the AD curve inward</p>



Why the Short-run Aggregate Supply Curve is Upward Sloping

According to classical macroeconomic theory, the aggregate supply curve is perfectly vertical in the long run. However, in the short term (*i.e., over a period of one or two years*), it is upward sloping. That means a decrease in the overall price level results in a lower quantity of goods and services supplied and vice versa. There are three theories that try to explain why suppliers behave differently in the short run than they do in the long run: (1) the sticky wage theory, (2) the sticky price theory, and (3) the misperceptions theory. We will look at each of them in more detail below.

1. The Sticky Wage Theory

According to the sticky wage theory, the upward slope of the aggregate supply curve in the short-run is due to the fact that nominal wages are slow to adjust to changes in the overall price level (*i.e., they are sticky*). That means when the price level falls, most firms cannot adjust wages immediately, which leads to an increase in real production costs. As a consequence, the suppliers hire fewer workers and produce a smaller quantity of goods and services. According to this theory, the slow adjustment rate of wages is mainly caused by existing employment contracts and social norms that prevent frequent wage cuts.

For example, think of an imaginary firm that employs several workers. All of those employees have long-term contracts, and the firm has agreed to pay them a nominal wage based on the expected price level. Now, if the price level falls below the expected level, the firm's real wages (*i.e., nominal wages/price level*) increase, which results in higher real costs. Meanwhile, revenue is likely to decrease due to the unexpectedly low price level. As a result, the firm hires fewer workers to cut costs and produces a smaller quantity output.

2. The Sticky Price Theory

The sticky price theory states that the short-run aggregate supply curve slopes upward because the prices of some goods and services are slow to adjust to changes in the overall price level. That means when the overall price level falls, some firms may find it hard to adjust the prices of their products immediately. This causes sales to drop, which in turn leads to a decrease in the quantity of goods and services supplied. According to the sticky price theory, the primary reason for sticky prices is what we call *menu costs*. Menu costs describe all costs incurred by firms in order to change their prices (*e.g., printing new menus, distributing updated price lists, changing price tags on the shelves*).

To illustrate this, imagine all firms announce their prices at the beginning of the year, based on the overall price level they expect. Then, throughout the year, the actual price level falls



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lower than expected. In reaction to this, some firms immediately lower their prices, while others decide to temporarily stick with their initial prices to avoid additional menu costs. In other words, they don't want to (*or can't afford to*) spend money on new brochures, price lists, menus, etc. As a result, their prices are now too high, and sales decline. This, in turn, causes them to temporarily reduce production and hire fewer workers.

. The Misperceptions Theory

According to the misperceptions theory, the short-run aggregate supply curve is upward sloping because changes in the overall price level can temporarily mislead suppliers about what is happening in their individual market. That means, when the price level falls, many firms will notice a fall in the price of the goods and services they sell and reduce production because they believe their business has become less profitable. However, if the overall price level falls, the prices of other products (*including raw materials used for production*) decrease as well. That means the *relative price* of the firms' products doesn't necessarily decline, and there is no actual reason to reduce the output.

To give an example, think of a firm that sells mobile phones. If the overall price level falls, the managers of this firm may notice a fall in the prices of mobile phones. Based on this observation, they may mistakenly believe that their business has become less profitable (*i.e., their relative prices have fallen*) and temporarily cut back on production and employment. Meanwhile, however, the prices of input materials have declined as well, so the *relative price* of mobile phones hasn't changed, and their fear was unfounded.

Summary

While the aggregate supply curve is perfectly vertical in the long run, it is upward sloping in the short run. There are three theories that try to explain why suppliers behave differently in the short run than they do in the long run: the sticky wage theory, the sticky price theory, and the misperceptions theory. According to the sticky wage theory, the upward slope of the short-run aggregate supply curve is due to the fact that nominal wages are slow to adjust to changes in the overall price level. The sticky price theory states that the curve slopes upward because the prices of some goods and services are slow to adjust to changes in the price level. Finally, the misperceptions theory states that the short-run aggregate supply curve is upward sloping because changes in the overall price level can temporarily mislead suppliers about what is happening in their individual market.



Dec , 2013 (Macroeconomic) (Q-6)

What Is a Multiplier?

In economics, a multiplier broadly refers to an economic factor that, when increased or changed, causes increases or changes in many other related economic variables. In terms of gross domestic product, the multiplier effect causes gains in total output to be greater than the change in spending that caused it.

The term multiplier is usually used in reference to the relationship between government spending and total national income. Multipliers are also used in explaining fractional reserve banking, known as the deposit multiplier.

Explaining Multipliers

A multiplier is simply a factor that amplifies or increase the base value of something else. A multiplier of 2x, for instance, would double the base figure. A multiplier of 0.5x, on the other hand, would actually reduce the base figure by half. Many different multipliers exist in finance and economics.

The Fiscal Multiplier

The fiscal multiplier is the ratio of a country's additional national income to the initial boost in spending or reduction in taxes that led to that extra income. For example, say that a national government enacts a \$1 billion fiscal stimulus and that its consumers' marginal propensity to consume (MPC) is 0.75. Consumers who receive the initial \$1 billion will save \$250 million and spend \$750 million, effectively initiating another, smaller round of stimulus. The recipients of that \$750 million will spend \$562.5 million, and so on.

The Investment Multiplier

An investment multiplier similarly refers to the concept that any increase in public or private investment has a more than proportionate positive impact on aggregate income and the general economy. The multiplier attempts to quantify the additional effects of a policy beyond those immediately measurable. The larger an investment's multiplier, the more efficient it is at creating and distributing wealth throughout an economy.



The Keynesian Multiplier Theory

One popular multiplier theory and its equations were created by British economist John Maynard Keynes. Keynes believed that any injection of government spending created a proportional increase in overall income for the population, since the extra spending would carry through the economy. In his 1936 book, "The General Theory of Employment, Interest, and Money," Keynes wrote the following equation to describe the relationship between income (Y), consumption (C) and investment (I):

$$\begin{aligned} Y &= C + I \\ \text{where: } Y &= \text{income} \\ C &= \text{consumption} \\ I &= \text{investment} \end{aligned}$$

The equation states that for any level of income, people spend a fraction and save/invest the remainder. He further defined the marginal propensity to save and the marginal propensity to consume (MPC), using these theories to determine the amount of a given income that is invested. Keynes also showed that any amount used for investment would be consumed or reinvested many times over by different members of society.

The Fractional Reserve Money Multiplier

Assume a saver invests \$100,000 in a savings account at his or her bank. Because the bank is only required to maintain a portion of that money on hand to cover deposits, it can loan out the remainder of the deposit to another party. Assume the bank loans out \$75,000 of the initial deposit to a small construction company, which uses it to build a warehouse. Over time, if the bank continues to lend up to its required reserve ratio $R=25\%$, the amount of additional demand deposits or "money" created by the initial deposit will be $1/R$ or $1/.25 = 4$ times, which is typically called the Money Multiplier.

The funds spent by the construction company go to pay electricians, plumbers, roofers, and various other parties to build it. These parties then go on to spend the funds they receive according to their own interests. The \$100,000 has earned a return for the investor, the bank, the construction company, and the contractors that built the warehouse. Since Keynes' theory showed that investment was multiplied, increasing incomes for many parties, Keynes coined the term "multiplier" to describe the effect.

The deposit multiplier is frequently confused or thought to be synonymous with the money multiplier. However, although the two terms are closely related, they are not interchangeable. If banks loaned out all available capital beyond their required reserves, and if borrowers spent every dollar borrowed from banks, then the deposit multiplier and the money multiplier would be essentially the same.



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In actual practice, the money multiplier, which designates the actual multiplied change in a nation's money supply created by loan capital beyond bank's reserves, is always less than the deposit multiplier, which can be seen as the maximum potential money creation through the multiplied effect of bank lending.



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june, 2012 (Macroeconomic) (Q-3)

The basis for comparison between the balance of trade and the balance of payments	Balance of Trade	Balance of Payments
1. The Meaning	The balance of trade can be defined as the net balance of the export of goods and the import of goods in a given period.	The balance of payments is the total balance of trade, services, unilateral transfers, and capital account.
2. What is it all about?	The balance of trade helps a country look at the net profit or net loss incurred by exporting and importing goods.	The balance of payment helps to see whether everything is properly accounted for.
3. Difference	The balance of trade is the difference between exports of goods and imports of goods.	The balance of payments is the difference between the inflow of foreign exchange and the outflow of foreign exchange.
4. Net effect	The net effect of the balance of trade is either positive, negative, or zero.	The net effect of the balance of payments is always zero.
5. Type of transactions	The entries in the balance of trade are related to goods.	The transactions related to goods, services, transfers are included in the balance of payments.
6. Capital and unilateral transfers	Capital and unilateral transfers are not included in the trade balance.	Capital and unilateral transfers are included in the balance of payments.
7. Holistic picture	It only provides a partial view.	It provides the whole picture.