Macroeconomics lecture assignment

Economics

For example: the decision by a firm to buy or not a particular machine used in its production process is a microeconomic problem. The effect of a decrease in the interest rate on the saving decisions of Kenya households is a macroeconomic problem. Therefore, the objective of macroeconomics is to explain some features of an economy as a whole, and toward this end, macroeconomics collects data on many aggregate variables and try to create theoretical models that can explain the behavior of such variables.

In macroeconomics, 3 aggregate variables are normally very important to describe the economic situation in a given economy/country: GAP (Gross Domestic Product: the value of goods and services produced in a country in a given period of time), the Inflation Rate (the percentage change of the general level of prices from one period to another) and the Unemployment Rate (how many people in the labor force re unemployed in a given period of time, in percentage). We shall now explore some of these important macro variables in more detail.

National Income National Income refers to the monetary value of the flow of final goods and services arising from the productive activities of a nation in any one period. National Income is measured using Gross Domestic Product (GAP). GAP measures the total income of everybody in the economy in a given period and the expenditure of everybody on the economy’s output of goods and services. GAP measure the income and expenditure simultaneously because the two re really the same. For an economy as a whole, Income must be equal to expenditure.

I = E To further explain this, consider a worker w ho renders a service and is paid an income: The worker receives an income while the recipient of the service incurs an expenditure. In aggregate therefore, income is equal to expenditure. The Circular Flow of Income diagram is used to further illustrate the equality of Income and Expenditure. The Circular Flow of Income This diagram describes all the transactions between households and firms in a simple economy. Let simplifies matters by assuming that all goods and arrives produced by firms are bought by households and that households spend all their income.

When households buy goods and services from firms, this flow is through the markets for goods and services. Firms in turn spend the money from sales to pay workers' wages, rents and profits to owners. Money therefore continuously flows from households to firms and then back to households. This is of course oversimplifies because households do not spend all their income and there is also the government that apart from receiving taxes also buys some goods and services. Regardless of whether a should, government or firm buys goods, every transaction has a buyer and a seller.

Therefore, for an economy as a whole, expenditure and income are always the same. See the circular flow diagram on up. 197, chapter 10, Manama. Measurement of Gross Domestic Product Gross Domestic Product is the market value of all final goods and services produced within a country in a given period of time. Components of GAP GAP is measured by considering all the various forms of expenditure. GAP (Y) is divided into 4 components:- Consumption C, Investment (I), Government Spending (G) and Net exports (NIX).

The GAP measurement formula is there an identity of the form: Y -?? C +1 + G + NIX Consumption C) Consumption is the spending by households on goods and services. These are both consumption goods like food and clothing and durable goods like electronics, automobile etc. It also includes services like medical services, education etc. Investment (I) This is the purchase of goods that will be used in future to produce more goods and services. It is the sum of purchases of capital equipment, inventories and structures. The purchase of a new home by a household is considered part of investment.

Note that the word investment is used differently from what you may know of it: stocks, bonds etc. Government Purchases (G) This includes spending on goods and services by county and national government. It includes salaries paid to civil servants as well as spending on infrastructure and public utilities. Net Exports This refers to exports (foreign purchase of domestically produced goods) minus imports (local purchase of foreign goods). Exercise: The US aggregate data for 2009 is a presented in the table below: USED Billions Consumption 1 0, 093 Investment 1 , 623 Government Purchases 2, 933 Net exports (390)

US Population 370 million I) Compute the US GAP in 2009. (14259) ii) What is the contribution of consumption to GAP in the IIS in the period? Iii) Compute the GAP per capital GAP per capita is the GAP per person. Real Versus Nominal GAP GAP is the measure of total expenditure on goods and services in all markets in an economy. If GAP increases from one period to the next, then it means that either the output is larger or the prices the goods are sold at is higher. To separate the two effects economists use a measure called

Real GAP. Real GAP shows the increase in a country output of goods and services.

Nominal GAP is the production of goods and services measured at current prices. Real GAP is the production of goods and services measured at constant base year prices. Since real GAP is not affected by changes in prices, changes in real GAP reflects only changes in amounts being produced. It is therefore a measure of the economy’s production of goods and services. Since economists measure a country’s well-being and its ability to support its citizenry through GAP then Real GAP is a better gauge of economic well-being than nominal GAP. The GAP Deflator This is the ratio of nominal GAP to real GAP.

Nominal GAP measures production at current prices while Real GAP only reflects the quantities produced. The GAP deflator measures the current level of prices relative to the base year. GAP Deflator = Nominal GAP X 100 Real GAP Since real and nominal GAP are equal in the base year, the GAP deflator is equal to 100. Example: GAP Class Exercise: Computing real and nominal Gaps Manama up. 204 (own example of tea and coffee) LECTURE 2: MEASURING THE COST OF LIVING INTRODUCTION Recap: The GAP deflator and changes in Price level Discussion and review of class exercise of lecture 1.

The Consumer Price Index The Consumer price Index (Cap) is a measure of the overall cost of goods and services bought by a typical consumer. It is used to monitor the cost of living over time. When the ICP rises, a typical family has to spend more money to keep the same the same standard of

living. When the general price level is persistently rising, we say that there is inflation. Inflation refers to a situ action where the overall price level is rising. Inflation rate is the percentage change in price level from the previous period.

Calculating the ICP and Inflation Rate In Kenya the KNOBS is responsible for compiling the National ICP. This is done on a monthly basis and the results disseminated. The ICP is computed as follows: Step 1: Select and fix the basket This is done by determining which goods (prices) are most important to a typical consumer and assigning them weights that reflect that importance. For instance, if the typical consumer buys more maize flour than wheat flour, then maize flour should be allocated a higher weight.

The selected goods prices constitute what is called a consumption basket. Step 2: Find the prices A survey is carried to obtain the prices of the basket of goods at each point in time. In Kenya, the KNOBS carries out price checks in designated markets for the basket of goods at a given date each month. Step 3: Compute the basket’s cost using the data collected the cost of the basket of goods is computed at each point. The basket is kept constant to ensure that only price effects are reflected in the computation of the cost Of the basket.

Step 4: Choose a base year and compute the index Designate one year as the base year, the benchmark against which other periods prices are compared. The choice of this year is arbitrary. The ICP is then computed as follows: ICP price of basket in current year / price of asset in base year X 100 I. E the price of the basket in each year divided by the price of the basket in

the base year. The computation up this stage gives us the Cap. How do we determine the inflation rate from the Cap?

Step 5: Compute the Inflation Rate The inflation rate is the percentage change in the price index from the preceding period. It is computed as: Inflation rate = (ICP in year 2 – ICP in year 1) / ICP in year 1 X 100 problems in measuring ICP I) Substitution bias The assumption of the ICP construction methodology is that consumers are rigid and are not able to substitute expensive goods for cheaper ones. This is not true. Fifth price of maize meal rises more than that of wheat meal, consumers can buy less of maize meal and more of wheat meal.

This means that with a fixed basket, the ICP continues to reflect higher cost of living than is being experienced by the typical consumer. Ii) Introduction of new goods and services When new goods are introduced in the market, consumers enjoy greater flexibility in their quest to maintain standard of living. For instance the introduction of the DVD reduced the need to attend movie theater. Iii) Unmeasured quality change When the quality of a good deteriorates with the price remaining constant, there is a loss of purchasing power.

Similarly, quality increases with price increases do not represent loss of purchasing power. While the Statistics bureaus try to take account of quality changes, to ensure that same quality comparisons are made, some unmeasured quality changes are not reflected in the Cap. Importance Of ICP and Inflation Statistics 1 . Helps the government in its economic management programs by disclosing the changes in the cost of living and

the effect it is having on various segments of the economy. 2. It is used to adjust incomes and set minimum wages 3.

It is used as a guide to investors on the level of returns they are receiving. 4. It helps to understand the money equivalents between different periods of time. GAP Deflator versus the ICP As earlier learnt, the EDP deflator is the ration of nominal GAP to Real GAP. The GAP deflator reflects the level of current prices relative to the prices in the base year. Economists monitor both the GAP deflator and the ICP to gauge the rate at which prices are rising in the economy. While the two statistics tell the same story, there can be a divergence due to the following seasons: 1 .