

UNIVERSITY OF GHANA BUSINESS SCHOOL
(UNDERGRADUATE PROGRAM- MAIN & CITY CAMPUS)

2nd Semester 2018/2019

UGBS 204: Macroeconomics and Business

1st Tutorial set

Problem One:

Explain whether or not, why, and how the following items are included in the calculation of GDP:

- a. Increases in business inventories.
- b. Fees earned by real estate agents on selling existing homes.
- c. Social Security checks written by the government.
- d. Building of a new dam by the Army Corps of Engineers.
- e. An economist earning \$2,000 by giving a speech to members of San Francisco's Commonwealth Club.
- f. Interest that your parents pay on the mortgage they have on their house. Like all interest paid by households and the government, interest on a homeowner's mortgage
- g. Purchases of foreign-made trucks by Ghanaian residents.
- h. Purchase of a remaindered item from inventory by GN Savings and loans LTD from Ghanaian Apparel.
- i. 14 million Ghanaians watching a commercial on network television.

Problem Two

What components of GDP (if any) would each of the following transactions affect? Explain.

- a. Kantanka sells a Mini from its inventory.
- b. A family buys a new refrigerator.
- c. Aunt Jane buys a new house.
- d. You buy fish and chips.
- e. The government resurfaces University Road.
- f. Kantanka builds a factory in Accra.
- g. Your parents buy a bottle of French wine.

Problem Three:

For each of the following transactions, determine the contribution to the current year's GDP

- a) On January 1, you buy 10 gallons of petrol at GHC 16 per gallon. The filling station purchased the petrol the previous week at wholesale price of GHC 13 per gallon.
- b) You purchased a locally manufactured AK 47 used in the 1st world war during an exhibition for GHC 2million. The brokerage fee was 6% of the sale value.

- c) A homemaker enters the work force, taking a job that pays GHC 50,000 a year. The homemaker now hires a nanny who is paid GHC 16,000 per year.
- d) You are informed that you have won a lottery worth GHC 5million to be paid to you immediately.
- e) You are informed that you have won a lottery worth GHC 3million to be paid to you immediately. In addition, the GNL pays you GHC 6000 to appear in their promotional advert.

Problem four

Suppose that Republic of Economists produces three goods: books, magazines and papers. The following table provides information about the prices and output for these three goods for the years 2013, 2014 and 2015.

Year	Price per book (GHC)	Quantity of books	Price per Magazine (GHC)	Quantity of Magazines	Price per Paper (GHC)	Quantity of papers
2013	100	10	50	100	10	200
2014	100	12	52	108	10	205
2015	110	12	54	115	10	212

- a. Using the provided information, fill in the following table.

Answer

Year	Nominal GDP
2013	
2014	
2015	

- b. What is the percentage change in nominal GDP from 2013 to 2014? Provide any formulas you use and show your work in calculating this answer.
- c. What was the percentage change in nominal GDP from 2014 to 2015?
- d. Using 2013 as the base year, fill in the following table.

Year	Real GDP
2013	
2014	
2015	

- e. What was the percentage change in real GDP from 2013 to 2014?
- f. What was the percentage change in real GDP from 2014 to 2015?
- g. Using 2013 as the base year, fill in the following table.

Year	GDP deflator
2013	
2014	
2015	

- a. What was the percentage change in GDP deflator from 2013 to 2014 and 2014 to 2015? Identify the variable that does not change. Explain in words why your answer makes sense.
- b. Calculate Inflation rate between 2013 and 2014, and 2014 and 2015 using GDP deflator

Problem Five

- a) Explain inflation. How is inflation measured? Provide a formula.
- b) What is a price index? Mention three types of prices indexes.

In ordinary language, clearly distinguish between the following pairs of concepts:

- c) Disinflation and deflation?
- d) Real GDP per capita and nominal GDP per capita
- e) Real interest rate and Nominal interest rate
- f) GDP and GNP