

Macroeconomics 1

Problem set 1

Tick the correct alternatives (more than one may be correct) or write your answer in the space provided. Unless otherwise stated, the notation and behavioural assumptions are the same as in the lectures and text-book.

1. Which of the following transactions affect this year's UK GDP?
 - a) Today you get a haircut from a hairstylist
 - b) Today an artist finishes a painting and sells it
 - c) Today you buy a XVI century castle in Scotland
 - d) Today you buy a bottle of French wine

2. During a given year, the following activities occur:
 - A silver mining company pays its workers £200,000 to mine 75 pounds of silver. The silver is then sold to a jewel manufacturer for £300,000.
 - The jewelry manufacturer pays its workers £250,000 to make silver necklaces which she sells directly to consumers for £1,000,000.

GDP can be measured from either the income or the output side (the latter looking either at the production of final goods or total value added). The three tables below use each of the three methods. Fill them in.

Income side				Output side (production of final goods)			
	Mining	Jewelry	Total		Mining	Jewelry	Total
Labour income				Value of final goods			
Capital income							
Total							

Output side (value added)

	Mining	Jewelry	Total
Value added			

3. An economy produces two goods: apples and cars. Quantity produced and prices per unit for years 1998 and 1999 were as follows:

	Q_{1998}	P_{1998}	Q_{1999}	P_{1999}
<i>Apples</i>	0	1	40	0.5
<i>Cars</i>	60	1,500	50	2,000

 - a) What is nominal GDP in 1998? _____ And in 1999? _____
 - b) Using 1998 as the base year (i.e. using 1998 prices) what is real GDP in 1998? _____ And in 1999? _____
 What is the ratio between real GDP in 1999 and 1998? _____
 - c) Using 1999 as the base year (i.e. using 1999 prices) what is real GDP in 1998? _____ And in 1999? _____
 What is the ratio between real GDP in 1999 and 1998? _____

4. Suppose Toyota buys BMW German plants. The take-over has no effect on the quantity of car produced at the plants.
 What is the effect of the acquisition on the following variables in subsequent years (choose between *up*, *down* and *unchanged*)?

a) German GDP _____

b) German GNP _____