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| **Exercises from old exams to chapters in B & W with solutions.** |

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| **Chapter 1 and 2** |

**Exercise 1**

Answer the following statements as **true** or **false**, and explain why. Write no more than three sentences on each question.

1. Inflation measures the increase in the value of money.

**Answer:**

**False:** Inflation measures the decrease in the value of money, i.e. a certain amount of money buys you less than previously.

1. Exogenous variables are determined outside the economic model.

**Answer:**

**True:** Endogenous variables are the object of analysis in an economic model.

1. “Norway should spend more of its oil revenue domestically” is an example of a positive (as opposed to normative) statement.

**Answer:**

**False:** Because this is a judgement passed on without explaining what criteria that are used.

**Exercise 2**

1. Define exogenous variables and endogenous variables and explain the statement: “When using economic models, it is essential to be clear about what we want to explain and what we take as given.”
2. Explain the economic situation in a country if the real GDP growth rate is higher than the nominal GDP growth rate.
3. Use the circular flow diagram to explain the economic situation in a country if total consumption as a percentage share of GDP = 60 % and net export as a percentage share of GDP = 10 %.

**Answer:**

1. Exogenous variables are determined outside the economic model while endogenous variables are the object of analysis in an economic model. The variables to be explained using economic principles are called endogenous variables. The others – those we do not try to explain – are called exogenous variables.
2. Then the GDP deflator inflation must be negative. On average prices dropped.
3. Then investments (the purchase of new equipment) must be 30 % of GDP.

**Exercise 3**

In the Macroeconomic accounts explain:

1. how gross domestic product (GDP) can be broken down into four main categories.
2. how the equation from a) is used in the short run models (Keynesian assumption).
3. how you can us the decomposition from a) and an other decomposition of GDP to express net flows of private sector, government and the rest of the world.
4. the situation if private sector = 10 % of GDP and the country at the same time are running an external deficit of 5 % of GDP, by using the equation from c).

**Answer**:

1. GDP broken down to four main categories are final sales of consumption goods and services (C), final sales of investment goods and additions to inventory stocks (I), final sales to the government (G) and net sales to the rest of the world (X-Z).
2. The equation used as a market equilibrium condition. With sticky prices in the short run, supply responds passively to shifts in demand.
3. Two decompositions of GDP (2.5) Y = C + I + G + X – Z and (2.6) Y = C + S + T. The two accounting identities yield a third: (2.7) (S – I) + (T – G) = (X – Z).
4. If (S – I) = 10 % and (X – Z) = - 5 % (sometimes used current account in stead of trade balance) then government (G – T) = (X - Z) – (S - I) = - 5 % - 10 % = - 15 %. The government must run a deficit of 15 % of GDP.

**Exercise 4**

1. Explain how nominal GDP (Gross Domestic Product) can change for two reasons.
2. How can you use GDP to compare the living standard across countries?

**Answer:**

1. Nominal GDP can change for two reasons. If a change in volume or in price. To see the volume change (real GDP) we use fixed prices.
2. We compare by converting GDP per Capita into a common currency and by using the purchasing power parity to adjust for differences in the cost of living.

**Exercise 5**

Explain how inflation and unemployment are related to the business cycle.

**Answer:**

Inflation is procyclical: It tends to rise in periods of high growth and declines in periods of slow growth. In contrast, the unemployment rate is countercyclical: it moves against the cyclical behaviour of output, falling when output is growing rapidly and rising when output is growing more slowly or falling.

**Exercise 6**

Explain the Key Accounting Identity (same notation as in the compulsory textbook): (S-I) + (T-G) = (X-Z).

Use the equation to explain the situation in a country if (S-I) = - 10 % of GDP and (T-G) = 5 %.

**Answer:**

S = private sector savings. I = private sectors investments. S-I = net private savings. G = public consumption. T = net taxes. G-T = government budget. X = exports. Z = imports. X-Z= trade balance or net exports. In the book it is also used CA = current account instead of the trade balance.

If S – I = - 10 % then private sector is a net borrower. If T – G = 5 % then the government is saving, but what private sector need to borrow are more than government is saving. Then the country as a hole must borrow (X-Z= - 5 % of GDP).

**Exercise 7**

Explain the difference between fiscal policy and monetary policy.

**Answer:**

Fiscal policy: The use of the government budget to affect the volume of national spending or more generally to provide public goods and services as well as to redistribute income. Monetary policy: Actions taken by central banks to affect monetary and financial conditions in an economy.

**Exercise 8**

Consider an economy where the GDP is equal to 1326, depreciation of real capital is 185, private consumption is 741, public consumption is 257, net investments in real capital is 124, and import is 593.

Then export will be?

**Answer:**

Export = 612.

**Exercise 9**

Which of the following statements are **false**:

1. If the government is borrowing by issuing public debt and the current account is balanced, then private sector must be saving.
2. If both government budget and current account are in balance, then the economy’s capital stock is ultimately financed by savings of resident households.
3. If both government and current account is in surplus, then private sector must be saving.
4. If private sector is a net borrower and the government budget is in balance, then the country must be running a current account deficit.

**Answer:**

c) If both government and current account is in surplus, then private sector must be saving.

**Exercise 10**

**(i)**

Which ONE of the following variables is a stock variable?

**a.** GDP.

**b.** Net external debt.

**c.** The price level.

**d.** Interest rate.

**Answer:**

Net external debt.

**(ii)**

Consider an economy where GDP is equal to 1600, private consumption (C) is 850, gross investments in real capital (I) is 350, exports (X) is 400 and imports (Z) is 300.

Then public consumption (G) will be?

**Answer:**

G is 300.

**(iii)**

Suppose during a year that nominal wages have increased by 3.5 %, that nominal interest rate has been stable at 5 % and that inflation has been 2 %.

Then the real wage has \_\_\_\_\_\_\_\_\_\_\_\_ by \_\_\_\_ % and real interest rate has been \_\_\_\_ %.

**Answer:**

The real wage has increased by 1.5 % and real interest rate has been 3 %.