eLearneconomics: Economic Growth – Calculating GDP (1)

Student response

(a) Use the data below to calculate GDP using both income and expenditure methods. What do you note about the final total using both methods?

Country A	**$m**
Gross operating surplus	47 200
Import of goods and services	30 600
Changes in inventories	2 000
Compensation of employees	57 600
Export of goods and services	30 000
Taxes on production and imports	14 400
Final consumption expenditure by government	19 800
Final consumption expenditure by private sector	70 000
Gross fixed capital formation	27 000
Statistical discrepancy	200
Subsidies	1 200

Expenditure method

Income method

(b) Why is a figure for the 'value of physical increase in stocks' included?

(c) Why is a figure for imports of goods and services deducted in expenditure on Country A's GDP?

eLearneconomics: Economic Growth – Calculating GDP (1a)

Solution

(a) Use the data below to calculate GDP using both income and expenditure methods. What do you note about the final total using both methods?

They are the same

Country A	$m
Gross operating surplus	47 200
Import of goods and services	30 600
Changes in inventories	2 000
Compensation of employees	57 600
Export of goods and services	30 000
Taxes on production and imports	14 400
Final consumption expenditure by government	19 800
Final consumption expenditure by private sector	70 000
Gross fixed capital formation	27 000
Statistical discrepancy	200
Subsidies	1 200

Expenditure method

70 000 + 27 000 + 2 000 + 19 800 + (30 000 – 30 600) + 200 = $118 400 m

Income method

57 000 + 47 200 + (14 400 – 1 200) = $118 400 m

(b) Why is a figure for the 'value of physical increase in stocks' included?

The 'value of physical increase in stocks' are goods and services produced (so are part of GDP). If there is an increase in stocks available for sale, this leads to an increase in GDP. A decrease in stocks for goods will reduce GDP. This is done because we are interested in determining the value in the current year.

(c) Why is a figure for imports of goods and services deducted in expenditure on Country A's GDP?

The figure for imports of goods and services is deducted because they are not produced in Country A.

eLearneconomics: Economic Growth – Calculating GDP (2)

Student response ______________________________

(a) Use the data in the table below to calculate GDP using both income and expenditure methods. Show your working.

Country B	$m
Compensation of employees	111 418
Gross fixed capital formation	62 302
Final consumption expenditure – private	101 048
Changes in inventories	9 000
Taxes on production and imports	24 902
Final consumption expenditure general government	38 806
Exports of goods and services	51 208
Subsidies	3 122
Statistical discrepancy	2 560
Imports of goods and services	55 786
Gross operating surplus	75 940

Expenditure method

____

____

Income method

____

____

(b) Under which category would the following events be classified?

(i) Money spent on Country B's goods overseas. ______________________________

(ii) A student buying a computer. ______________________________

(iii) A firm buying a new computer for a sales rep. ______________________________

(iv) Spending on a navy frigate. ______________________________

(v) A family buying a car. ______________________________

(vi) Payments to factory workers. ______________________________

(vii) A firm upgrading its transport fleet. ______________________________

(c) List the major economic aggregates used in calculating GDP using the expenditure approach.

____

____

____

____

eLearneconomics: Economic Growth – Calculating GDP (1a)

Solutions

(a) Use the data in the table below to calculate GDP using both income and expenditure methods. Show your working.

Country B	$m
Compensation of employees	111 418
Gross fixed capital formation	62 302
Final consumption expenditure – private	101 048
Changes in inventories	9 000
Taxes on production and imports	24 902
Final consumption expenditure general government	38 806
Exports of goods and services	51 208
Subsidies	3 122
Statistical discrepancy	2 560
Imports of goods and services	55 786
Gross operating surplus	75 940

Expenditure method

101 048 + 62 302 + 9 000 + 38 806 + (51 208 – 55 786) + 2 560 = $ 209 138 m

Income method

111 418 + 75 940 + (24 902 – 3 122) = $ 209 138 m

(b) Under which category would the following events be classified?

(i) Money spent on Country B's goods overseas. Export goods and services

(ii) A student buying a computer. Final consumption expenditure – private

(iii) A firm buying a new computer for a sales rep. Gross fixed capital formation

(iv) Spending on a navy frigate. Final consumption expenditure – government

(v) A family buying a car. Final consumption expenditure – private

(vi) Payments to factory workers. Compensation of employees

(vii) A firm upgrading its transport fleet. Gross fixed capital formation

(c) List the major economic aggregates used in calculating GDP using the expenditure approach.

Final consumption expenditure private plus final consumption expenditure government plus gross fixed capital formation plus changes in inventories plus exports minus imports plus statistical discrepancy.