

AP[®] MACROECONOMICS
2011 SCORING GUIDELINES (Form B)

Question 3

5 points (2 + 1 + 1 + 1)

(a) 2 points:

- One point is earned for calculating the nominal GDP for 2010 as \$145 (= 20 + 100 + 25).
- One point is earned for calculating the real GDP in 2010 as \$100 (= 20 + 60 + 20).

(b) 1 point:

- One point is earned for calculating the inflation rate as 10 percent (= 5/50).

(c) 1 point:

- One point is earned for stating that the real wage will be lower.

(d) 1 point:

- One point is earned for stating that Sara will benefit from the unexpected inflation because her fixed loan payments have less value.

$$3.(a) (i) \text{ Nominal GDP in 2010} = 8 \times \$2.5 + 10 \times \$10 + 5 \times \$5 \\ = \$145$$

$$(ii) \text{ Real GDP in 2010} = 8 \times \$2.5 + 10 \times \$6 + 5 \times \$4 \\ = \$100.$$

$$(b) \text{ Rate of inflation} = \frac{55 - 50}{50} = 10\%$$

(c) Real wage will be lower than today's wage.

(d) Sara benefits from the unexpected inflation.

Because the unexpected inflation makes the real value that Sara should return to bank lower given the fixed rate of the loan.

3

Write in the box the number of the question you are answering on this page as it is designated in the exam. 3B

$$\begin{aligned} \text{a) i) Nominal GDP in 2010} &= (8 \times 2.5) + (10 \times 10) + (5 \times 5) \\ &= 20 + 100 + 25 \\ &= 145. \end{aligned}$$

$$\begin{aligned} \text{ii) real GDP in 2010} &= 145 - \{(6 \times 2.5) + (5 \times 6) + (2 \times 4)\} \\ &= 145 - (15 + 30 + 8) \\ &= 145 - 53 \\ &= 92 \end{aligned}$$

$$\begin{aligned} \text{b) rate of Inflation} &= \left(\frac{110}{100} \times 100\right) - \left(\frac{100}{100} \times 100\right) \\ &= 110 - 100 \\ &= 10\% \end{aligned}$$

c) ~~Rate~~ The real wage will be lower than the wage rate of today, because the Inflation rate is 4% but people will only get 3% raised wage.

d) The bank is benefited from the unexpected Inflation. It's because, Sara only gets 3% of the interest even though she should get 4% of interest. She loses 1% of her interest because of the unexpected Inflation. In other words, bank is giving Sara less of the money than it should give, since her nominal interest rate decreases by 1%.

* Nominal Interest rate = Real Interest rate + expected Inflation.

CPI
rate of
inflation:
—
—
 $\frac{110}{100} = 1.1$
 $\frac{110}{100} = 1.1$
1.1

(a)

(i) The nominal gross domestic product (GDP) in 2010
 $\$145.92 = \$13140.$

(ii) The real GDP in 2010

$$8 \cdot \$2.5 + 10 \cdot \$10 + 5 \cdot \$5 = \$145$$

(b) ~~5%~~

The rate of inflation from one year to the next is

(c) lower real wage will be at the beginning of next year.

(d) The bank will benefit from the unexpected inflation. Because actual inflation is higher than expected inflation rate, Sara loses benefit.

AP[®] MACROECONOMICS
2011 SCORING COMMENTARY (Form B)

Question 3

Sample: 3A

Score: 5

The student answers all parts of the question correctly and so earned all 5 points.

Sample: 3B

Score: 3

The student earned 1 point in part (a) for the correct calculation of nominal GDP, 1 point in part (b) for the correct calculation of the rate of inflation, and 1 point in part (c) for the correct conclusion.

Sample: 3C

Score: 1

The student earned 1 point in part (c) for stating that the real wage would be lower.