

ECON 3560/5040

Quiz #11 (Answers)

Last Name: _____, First Name: _____

(1) [10 points] **The Phillips Curve**

Suppose that an economy has the Phillips curve

$$\pi_t = \pi_t^e - 0.5(u_t - 0.06)$$

- (a) [2 points] What is the natural rate of unemployment (u^n)?

$$u^n = 0.06 \text{ or } u^n = 6\%$$

- (b) [4 points] Use the Phillips curve diagram to illustrate graphically how the inflation rate (π) and unemployment rate (u) change in the short run to an ***unexpected expansionary*** monetary policy

If the change in monetary policy is not expected, in the short run, the inflation rate increases and the unemployment falls. It causes a movement along the Phillips curve.

- (c) [4 points] Use the Phillips curve diagram to illustrate graphically how the inflation rate (π) and unemployment rate (u) change in the short run to an ***expected contractionary*** monetary policy

If the change in monetary policy is fully expected, the Phillips curve shifts upward to the right in the short run. Therefore, unemployment rate stays the same, but inflation rate will be higher than what it was initially.

(2) [10 points] **The Keynesian Consumption Function**

(a) [3 points] What were Keynes's three conjectures about the consumption function?

i) *MPC is between zero and one*

ii) *APC falls as income rises*

iii) *Income is the primary determinant of consumption and the interest rate does not have an important effect on consumption*

Suppose that the consumption function is given by the equation

$$C_t = 200 + 0.8Y_t.$$

Answer each of the following questions.

(b) [2 points] What is APC when income is \$1,000?

$$APC = \frac{C}{Y} = \frac{1000}{1000} = 1.0$$

(c) [2 points] What is APC when income is \$2,000?

$$APC = \frac{C}{Y} = \frac{1800}{2000} = 0.9$$

(d) [2 points] According to your answers in parts (b) and (c) above, does APC fall as income rises?

Yes. As income rises from \$1000 to \$2000, APC falls from 1.0 to 0.9

(e) [1 points] Does MPC fall as income rises?

No. The MPC (= 0.8) remains constant as income changes