eLearneconomics: Inflation – Quantity Theory of Money (1)

Student response ____________________

$$M \times V \equiv P \times Q$$

M = money supply	P = price level
V = velocity of circulation	Q = real output

Explain how increases in M affect P and how there is likely to be a difference in the boom and recovery phases of the business cycle.

eLearneconomics: Inflation – Quantity Theory of Money (1a)

Solution

$$M \times V \equiv P \times Q$$

M = money supply — P = price level
V = velocity of circulation — Q = real output

Explain how increases in M affect P and how there is likely to be a difference in the boom and recovery phases of the business cycle.

If the money supply (M) increases then inflation (an increase in the general price level) increases, assuming that V and Q are unchanged (constant).

In a boom (peak) period of the business cycle the economy is operating at or near full capacity and there is likely to be a shortage of resources which will cause firms to bid scarce resources away from each other. The restricted ability of output or production (Q) to increase when the money supply (M) increases is likely to result in significant increases in the price level (P).

In a recovery period (upswing) of the business cycle, there is likely to be spare or idle capacity in the economy as resources are not fully used. Therefore the increase in output or production (Q) that results due to the recovery is likely to reduce the impact on the price level (P) when the money supply (M) increases.

eLearneconomics: Inflation – Quantity Theory of Money (2)

Student response

(a) Fully explain, using the Quantity Theory of Money, the impact of an increase in the Money Supply on the price level during the recovery stage of the business cycle.

In your answer you should:

- Explain the impact on the other variables in the Quantity Theory of Money equation of an increase in the money supply during the recovery stage of the business cycle.
- Explain how the economy being in the recovery stage of the business cycle may influence the size of any impact on the price level.

(b) (i) State the equation of exchange.

(ii) Identify what variable in the equation represents:

(iii) Explain at what stage of the business cycle is the variable Q is likely to be relatively constant.

eLearneconomics: Inflation – Quantity Theory of Money (2a)

Solutions

(a) Fully explain, using the Quantity Theory of Money, the impact of an increase in the Money Supply on the price level during the recovery stage of the business cycle.

In your answer you should:

- Explain the impact on the other variables in the Quantity Theory of Money equation of an increase in the money supply during the recovery stage of the business cycle.
- Explain how the economy being in the recovery stage of the business cycle may influence the size of any impact on the price level.

The Quantity Theory of Money states that $MV \equiv PQ$. If the Money Supply (M) increases, then it is likely spending will increase resulting in the price level (P) also increasing.

During a recovery phase of the business cycle it is likely that consumer confidence is low, and therefore the velocity of circulation (V) will be low, reducing the impact on the price level of an increase in the Money Supply (M). The level of output (Q) in a recovery is able to rise because resources are not being fully used, therefore this will reduce the impact on the price level (P) of an increase in the Money Supply (M).

(b) (i) State the equation of exchange.

$MV \equiv PQ$

(ii) Identify what variable in the equation represents:

M = the Money supply	P = the Price level
V = Velocity of circulation	Q = Quantity produced / real output

(iii) Explain at what stage of the business cycle is the variable Q is likely to be relatively constant.

At the top end of the business cycle when the economy is near full capacity; i.e., resources are almost fully employed and the real output (Q) cannot expand further, Q may be relatively constant.