

**Subject CT7 — Economics.  
Core Technical**

**September 2009 Examinations**

**EXAMINERS' REPORT**

**Introduction**

The attached subject report has been written by the Principal Examiner with the aim of helping candidates. The questions and comments are based around Core Reading as the interpretation of the syllabus to which the examiners are working. They have however given credit for any alternative approach or interpretation which they consider to be reasonable.

R D Muckart  
Chairman of the Board of Examiners

December 2009

**Comments for individual questions are given with the solutions that follow.**

1

*The answer was C*

2

*The answer was C*

3

*The answer was A*

4

*The answer was D*

5

*The answer was B*

6

*The answer was A*

7

*The answer was D*

8

*The answer was A*

9

*The answer was A*

10

*The answer was D*

11

*The answer was B*

12

*The answer was D*

13

*The answer was B*

14

*The answer was B*

15

*The answer was D*

16

*The answer was C*

17

*The answer was C*

18

*The answer was B*

19

*The answer was D*

20

*The answer was C*

21

*The answer was D*

22

*The answer was A*

23

*The answer was B*

24

*The answer was D*

25

*The answer was A*

26

*The answer was A*

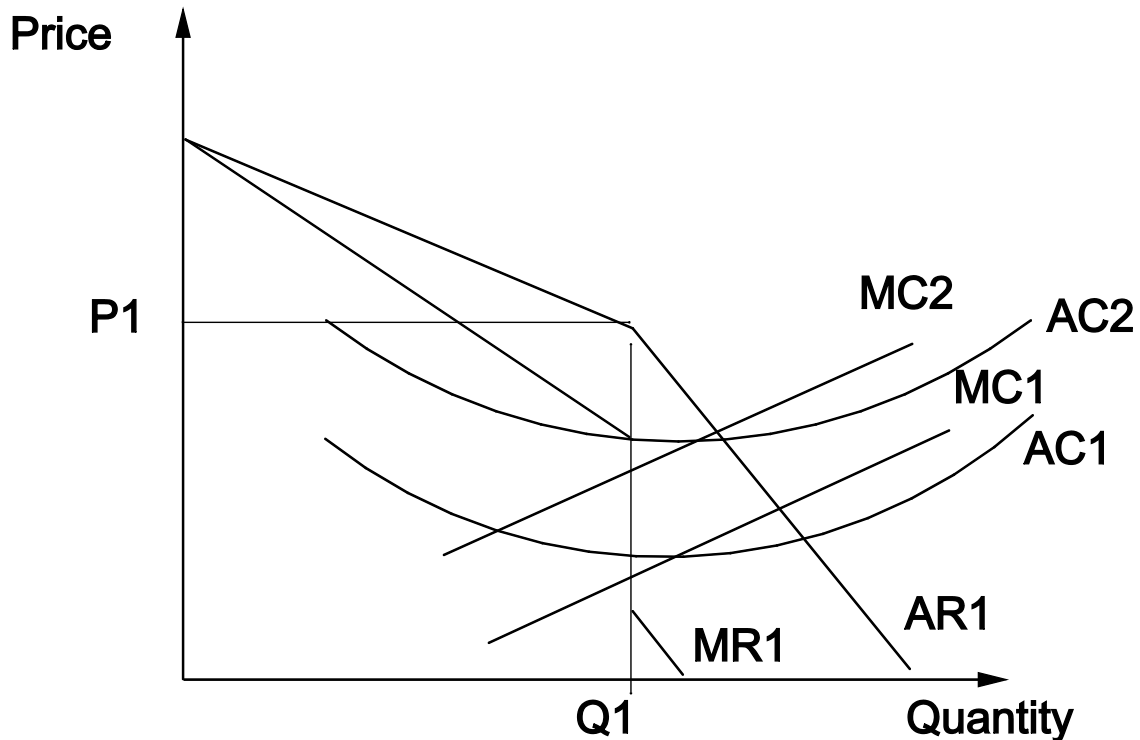
*The MCQ Questions were generally well answered although Questions 5 and 22 had a far greater of incorrect responses than one would expect.*

27

(i)

And

(ii)



- (iii) The firm's total revenue will fall as demand is highly price elastic above  $P_1$ . Consumers will switch to the firms that hold price at  $P_1$ .

*This question was generally well answered with candidates producing a clear, accurately labelled diagram with good explanations of why total revenue would fall. Weaker candidates lost marks mainly for not drawing a diagram which correctly identified the relationship between marginal and average costs. Some candidates referred to loss of market share but did not specifically state that total revenue would fall.*

28

(i)

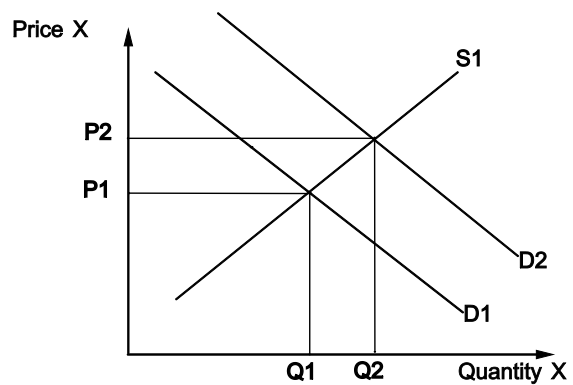
Output	Total Fixed Cost (£)	Marginal Cost (£)	Average Cost (£)
0	30	—	—
1	30	10	40
2	30	18	29
3	30	26	28
4	30	36	30
5	30	50	34

- (ii) 3 units of output per day.

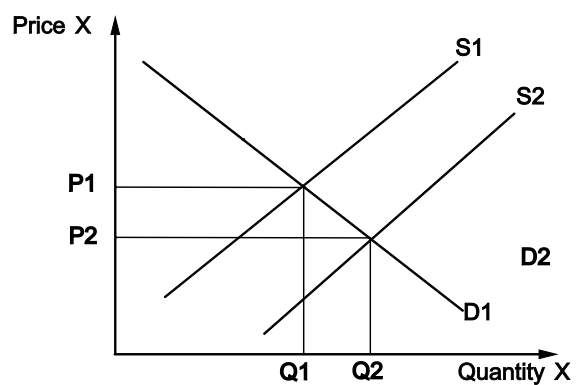
*This question was generally well answered with many candidates obtaining full marks.*

29

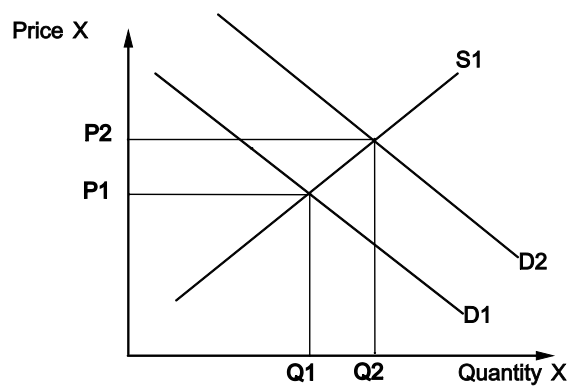
(i)



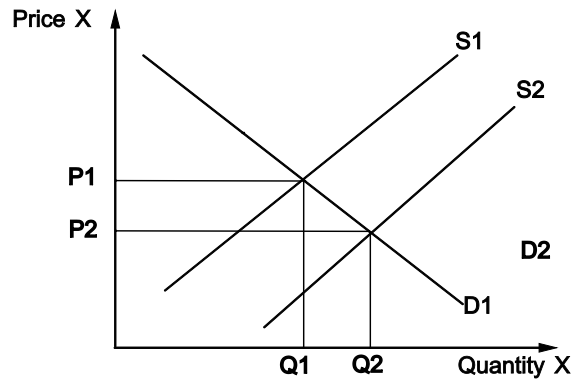
(ii)



(i)



(ii)



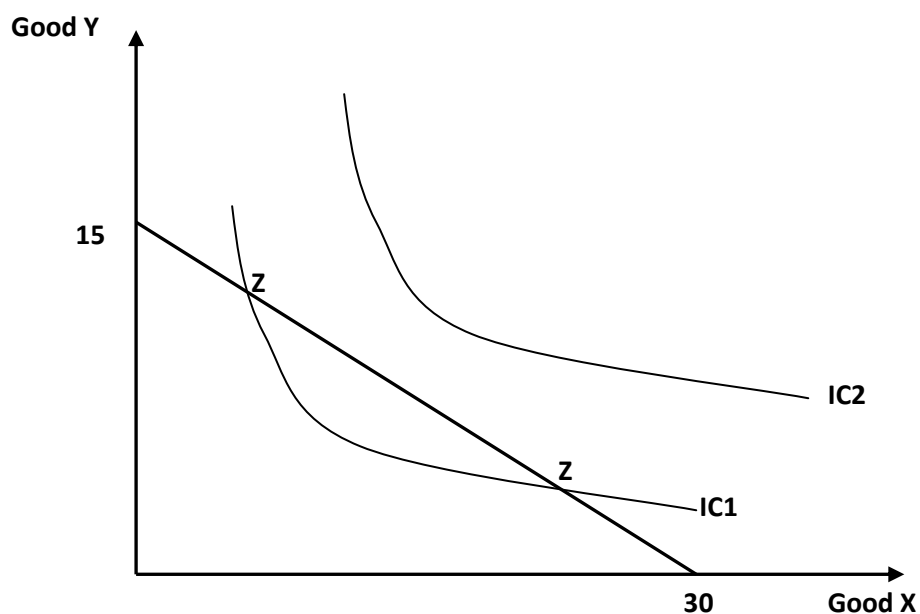
Candidates answered this question to a generally high standard. Diagrams were generally neat, accurate and labelled correctly. Part (iii) caused the most problems because candidates did not pay sufficient attention to the fact the question related to an Inferior good. As a result any fall in consumer's income lead to an increase in demand, not a decrease as is the case for normal goods.

30

- (i) Adverse selection refers to the fact that people who know that they are particularly bad risks are more inclined to take out insurance than those who know that they are good risks. To try to reduce the problems of adverse selection insurance companies try and find out information about potential policyholders. Policyholders can then be put in small, reasonably homogeneous pools and charged appropriate premiums.
- (ii) Moral hazard describes the fact that a policyholder may, because they have insurance, act in a way which makes the insured against event more likely to occur. Moral hazard makes insurance more expensive. It may even push the price of insurance above the maximum premium that a person is prepared to pay.

Generally well answered with many candidates gaining full marks.

31



Generally well answered with many candidates drawing accurate, clearly labelled diagrams. Some candidates were penalised for failing to draw indifference curves correctly ie convex to the origin, some curves were drawn upward sloping in part and this does not make economic sense.

32

(i)

<i>Number of Workers</i>	<i>Marginal Product of labour</i>	<i>Marginal Cost of producing X</i>
1	3	40
2	7	17.14
3	10	12
4	13	9.23
5	6	20
6	3	40

(ii) 39

(iii) £150

*This question had a variable range of responses. While most candidates were able to provide an accurate Marginal product of labour table, a significant number were unable to correctly calculate the associated marginal costs. The most common error seemed to be that the Marginal Cost would be constant and equivalent to the current wage rate ie £120 instead of the Marginal Cost of producing a unit of Good X. Also a significant number identified the number of workers associated with profit maximisation ie 5 instead of stating the output as requested in the question ie 39. In addition the final part of the question produced a wide range of responses with many candidates clearly misunderstanding the meaning of marginal revenue product.*

33

$$(i) \quad C = 8 + 0.8 (1 - 0.25)Y$$

$$I = 5$$

$$G = 6$$

$$X = 3$$

$$M = 0.15Y$$

$$Y = 8 + 0.8 (1 - 0.25) Y + 5 + 6 + 3 - 0.15Y$$

$$0.55Y = 22$$

$$Y = \text{£}40 \text{ billion}$$

$$(ii) \quad S + T + M$$

$$\begin{aligned} S &= -8 + 0.2 (1 - 0.25) Y \\ &= -2 \end{aligned}$$

$$\begin{aligned} T &= 0.25 (40) \\ &= 10 \end{aligned}$$

$$\begin{aligned} M &= 0.15 (40) \\ &= 6 \end{aligned}$$

$$-2 + 10 + 6 = 14$$

i.e. sum of leakages = £14 billion

(Check: Sum of injections is also £14 billion:  $5 + 6 + 3 = \text{£}14 \text{ billion}$ )

$$\begin{aligned} (iii) \text{ Multiplier} &= \frac{1}{1 - 0.8(1 - 0.25) + 0.15} \\ &= 1.81 \end{aligned}$$



Therefore to increase national income by £10 billion requires increase in government expenditure of £5.52 billion (although £5.5 billion is an acceptable answer see below).

$$50 = 8 + 30 + I + G + 3 - 7.50$$

$$G = 50 - 38.5$$

$$G = 11.5$$

$$dG = £5.5 \text{ billion.}$$

*This question was not particularly well answered. Many candidates were unable to correctly calculate the value of total leakages in part(ii). Many failed to recognise that there was an autonomous part of consumption expenditure which meant that disaving of £8 billion would take place therefore the final total of leakages would be £14b not £22b. Better candidates double checked their answer by calculating total injections and by recognising that in equilibrium total leakages = injections then £14b = injections = leakages.*

34

Transactions demand – money held for transactions purposes.

Precautionary demand – money held in case of some unexpected event.

Speculative demand – money held as an alternative to financial investment to avoid risk of a capital loss.

*This part of the syllabus is frequently covered and consisted mainly of an ability to recall knowledge. As a result, high marks were usually gained. The majority of responses correctly identified Transactions demand and Precautionary demand and provided an acceptable supporting explanation. A significant number were able to identify either the Speculative or Asset motive but were unable to fully explain what this meant, hence did not gain full marks.*

35

- (i) The Phillips curve depicts a historical statistical relationship that shows that there is a trade-off between inflation (including wage inflation) and unemployment. The Phillips curve seems to offer policy makers the option of lower unemployment but at a cost of higher inflation. Similarly, lowering inflation will result in a rise in unemployment.
- (ii) Monetarists are very critical of the idea that there is a long term trade-off between inflation and unemployment. They believe that the inflation rate in the long term is determined by the rate by which monetary growth exceeds the

rate of increase in money demand. Any increase in the money supply that attempts to reduce unemployment by raising prices relative to wages will be doomed to failure as workers demand wage rises in line with the inflation rate such that real wages are restored to their original level. Hence any reduction in unemployment below the long run natural rate may only be 'bought' at the cost of accelerating inflation. The long run Phillips curve is therefore vertical at the natural rate of unemployment.

*This question was generally well answered. Better answers provided clear supporting diagrams and were able to distinguish clearly between the Keynesian explanation of the trade off between inflation and unemployment and the Monetarist critique. There were many good examples of an ability to explain the Monetarist assertion of a vertical long run Phillips curve.*

36

- (i) Deficit £25 million  
 $(120 + 15 + 30 - 160 - 10 - 20)$
- (ii) Surplus £25 million  
 $(200 + 120 + 15 + 30 - 150 - 160 - 10 - 20)$
- (iii) £10 million deficit (i.e. opposite sign to change in reserves)
- (iv) + £10 million (pluses sum to 515, minuses sum to 525)

*Responses to this question varied significantly between candidates. Balance of payments calculations represent mainstream knowledge in relation to this paper and it was somewhat disappointing to note a large number of elementary errors. Many candidates failed to include unilateral receipts and payments in their 'invisibles' balance and therefore produced a wrong answer part(i). Also a large number assumed that the Balance for Official Financing was + £10 billion instead of - £10 billion. It was important to note that the question required the Balance for Official Financing NOT the Official Financing figure which was positive. Various attempts were made to calculate the statistical error many made basic arithmetical errors.*

37

Inflation is the annual percentage rate of change in the price of a weighted bundle of goods and services. Inflation is sometimes blamed on cost push factors, that is higher production costs, which are then passed onto the consumer in the way of higher prices. There are numerous possible causes of these cost push pressures, excessive wage demands (wages rises not justified by productivity increases), rises in commodity and raw material prices, a rise in imported input costs due to a depreciation of the currency and even attempts by firms to raise their profit margins.

Demand pull pressures are where increases in aggregate demand (consumer expenditure, government expenditure, investment and exports) exceed the output

potential of the economy resulting in upward pressure on prices. Excess aggregate demand is especially likely to result in inflationary pressures as the economy approaches full employment. The causes of demand pull pressures are numerous but expansionary monetary and fiscal policies are usually cited. On occasions excessive domestic demand factors are reinforced by a booming world economy.

There are numerous harmful effects to the economy that are caused by inflation. Inflation can arbitrarily redistribute the national income. For example, it hits those on fixed incomes, debtors who borrow at fixed rates of interest gain while lenders who lend at fixed rates lose. Inflation erodes the value of savings. In addition, inflation hits business planning and investment with businesses finding it harder to forecast costs, revenues, interest rates. Inflation will harm a country's international competitiveness especially if the currency is part of a **fixed exchange rate regime**. Inflation will also have the effect of placing upward pressure on interest rates, and long term bond yields may have a high inflation risk premium if a country has a poor inflation performance. This will undermine long term investment in the economy. Finally, inflation is an average of price rises which means that while some firms with above average price increases will be able to meet higher wage demands, other firms that raise their prices by less than the inflation rate will not. These firms may suffer from strikes and industrial disruption as workers seek compensation.

Most economists today recognise that there is a need to distinguish between anticipated and unanticipated inflation. To the extent that inflation is anticipated then it will generally speaking be less harmful than when it is unanticipated.

*There were a large number of detailed, well argued responses to this question which demonstrated a very good grasp of the material. Good answers provided clear definitions of both cost push and demand pull explanations of inflation plus some accurate supporting diagrams. In addition detailed responses clearly differentiated between anticipated and unanticipated inflation and the consequences relating to both types of inflation. Weaker candidates were not very clear regarding this distinction and often resorted to simply listing different types rather than discussing the relative importance of each type. Similarly the weaker candidates could only manage superficial explanations of the different causes of inflation.*

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Contractionary fiscal and monetary policies can prove to be powerful weapons in controlling inflation. A contractionary fiscal policy works by either cutting government expenditure or raising taxes or both. A contractionary fiscal policy helps to reduce inflationary pressures in the economy by reducing aggregate demand in the economy. A contractionary fiscal policy can also help in the longer run because reduced government borrowing will reduce the temptation for a government to print money to finance the national debt.

A contractionary monetary policy operates through government sales of treasury bills and bonds which places downward pressure on bond prices implying higher short

term interest rates. A contractionary open market operation means that the public holds more bonds and less money which in turn will reduce the broad money supply measure associated with the money multiplier. A lower level of money will in turn imply a reduced demand for goods and services which will then translate into a lower inflation rate. The higher short term interest rates will discourage consumption and investment thereby reducing aggregate demand in the economy. The quantity theory of money makes it clear that there is a link between the rate of growth of the money supply and the rate of inflation. Slower monetary growth will have the effect lowering current and expected inflation rates.

A further benefit of contractionary fiscal and monetary policies is that the exchange rate will tend to appreciate in value (sometimes quite significantly) which will lower the cost of imported inputs. Since most economies are fairly open this can represent a significant contribution to inflation control especially as lower prices for goods will in turn encourage wage moderation.

*There was a mixed variety of responses. Most candidates had few had problems explaining how contractionary fiscal policy might work and gained marks accordingly. Monetary policy was also dealt with quite effectively with the better candidates providing good supporting diagrams and demonstrating how a range of monetary instruments might be used to carry out monetary policy. However too many candidates failed to discuss the effectiveness of these policies in an open economy context. There was too little and often no reference to their operation within alternative exchange rate regimes. Modern economies are very open economies and better marks require discussion of open economy issues.*