INSTITUTE AND FACULTY OF ACTUARIES

EXAMINERS' REPORT

September 2011 examinations

Subject CT7 — Business Economics
Core Technical

Purpose of Examiners' Reports

The Examiners' Report is written by the Principal Examiner with the aim of helping candidates, both those who are sitting the examination for the first time and who are using past papers as a revision aid, and also those who have previously failed the subject. The Examiners are charged by Council with examining the published syllabus. Although Examiners have access to the Core Reading, which is designed to interpret the syllabus, the Examiners are not required to examine the content of Core Reading. Notwithstanding that, the questions set, and the following comments, will generally be based on Core Reading.

For numerical questions the Examiners' preferred approach to the solution is reproduced in this report. Other valid approaches are always given appropriate credit; where there is a commonly used alternative approach, this is also noted in the report. For essay-style questions, and particularly the open-ended questions in the later subjects, this report contains all the points for which the Examiners awarded marks. This is much more than a model solution – it would be impossible to write down all the points in the report in the time allowed for the question.

T J Birse
Chairman of the Board of Examiners

December 2011

General comments on Subject CT7

The Business Economics examination paper includes different types of questions requiring a variety of styles of answers in the degree of detail required. The questions clarify the amount of detail necessary in the answer.

For questions requiring calculations with workings, full marks would only be awarded if workings are shown. Similarly, in questions requiring explanation, full marks will be awarded for providing adequate explanation. For essay questions, candidates are expected to include the relevant facts and issues *as well as* the linkages so that a direct and coherent answer to the specific question is provided. Thus, mere statement of facts and a general discussion of issues around the specific question will not be sufficient to gain a high mark.

Comments on the September 2011 paper

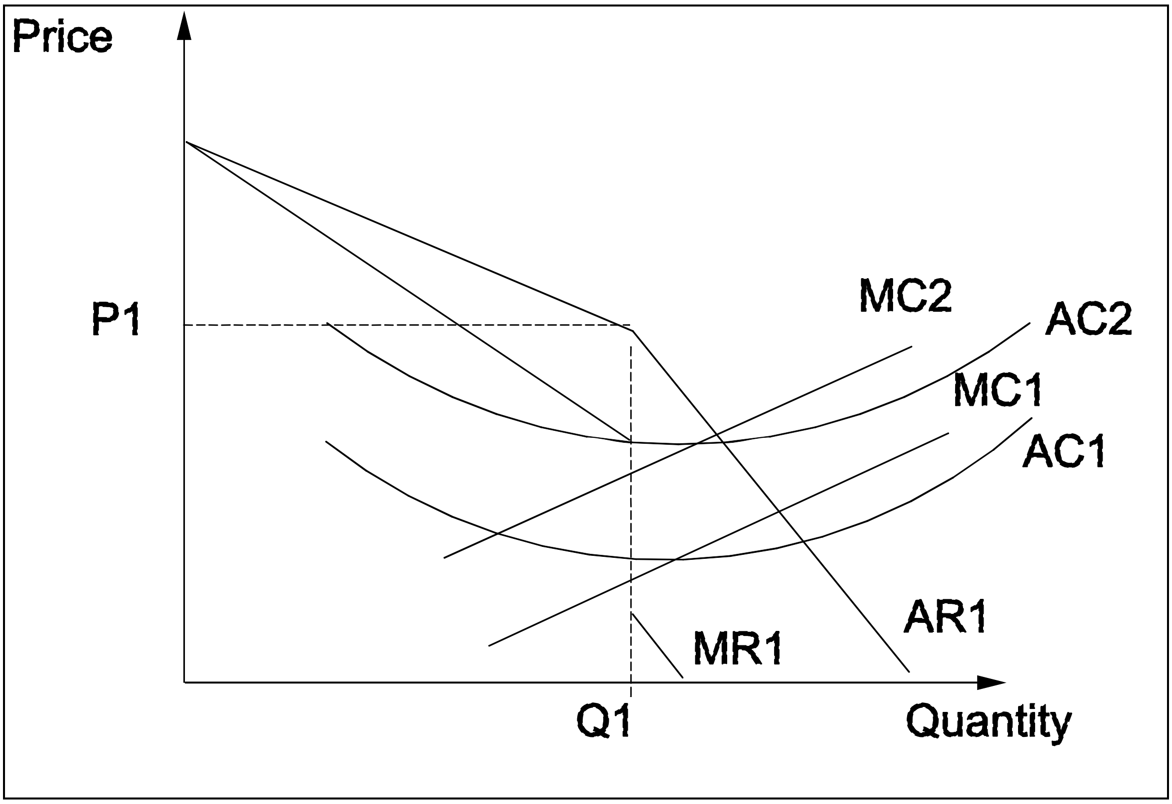
The paper was of a similar standard to last year's, when the new syllabus was introduced. The new syllabus includes a discussion of many new topics relevant to the world of business and to the economy as a whole. The paper, therefore, is balanced in favour of the more discursive type of questions. The new syllabus places a greater emphasis on, and provides a greater scope for testing the candidate's discursive and analytical as well as technical skills.

The standard of the performance in this diet was slightly below that in April. Candidates were generally able to provide correct answers to parts of the questions where these involved offering standard numerical solutions and diagrams, or listing of the relevant factors. However in later parts, where the answer was a variation on the standard calculation and diagrams, or required explanation of the concepts, answers were not as strong. The majority of the questions 31 to 38 in the paper fall under this category. These questions aimed to test the knowledge as well as a deeper understanding of the concepts and issues in economics. Candidates preparing for the examination for this subject are, therefore, encouraged to focus on building strength in these areas.

1	C
2	B
3	B
4	D
5	B
6	D
7	C
8	A
9	C
10	D
11	A
12	D
13	D
14	C
15	B
16	B
17	B
18	D
19	D
20	A
21	D
22	B
23	A
24	C
25	A
26	B

The multiple choice section was generally answered well although the number of incorrect responses to questions 6, 7, 11, 18 and 26 were higher than expected.

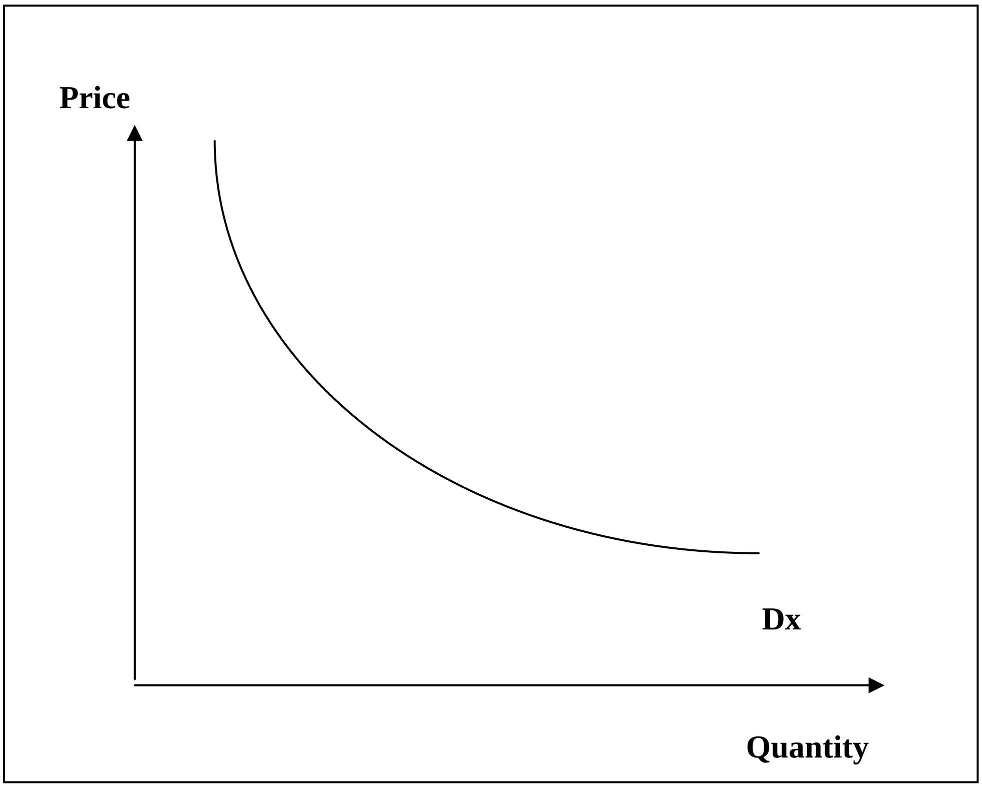
27 (i) and (ii)



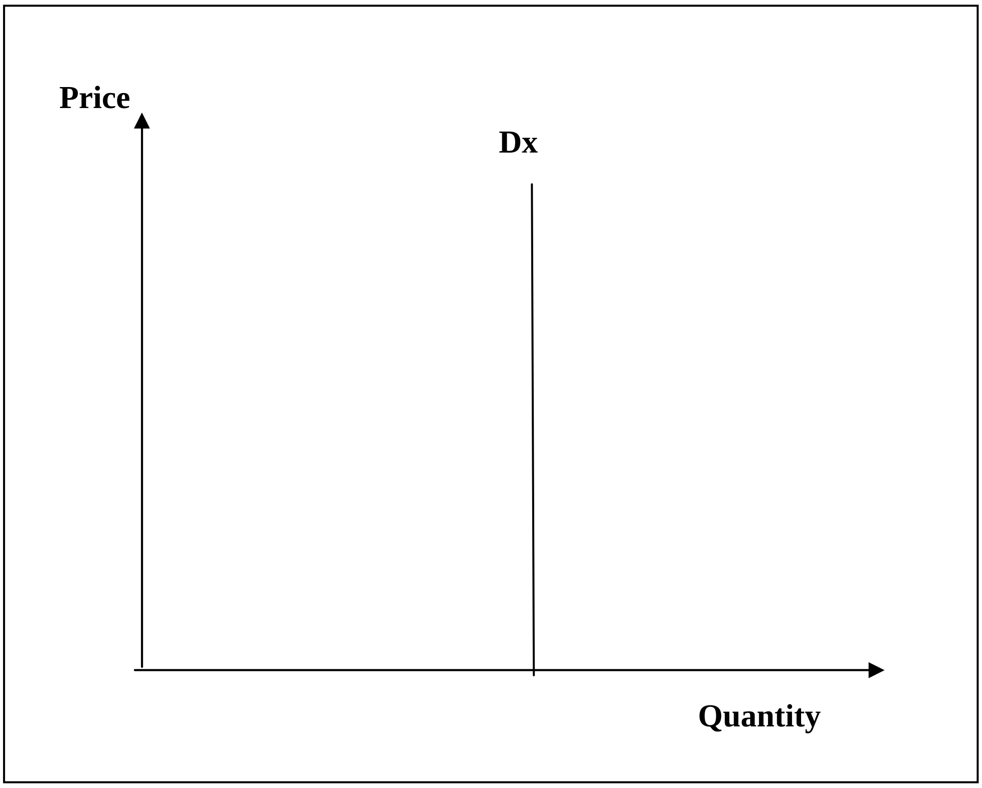
(iii) The firm's total revenue will fall as demand is highly price elastic above P1. Consumers will switch to the firms that hold price at P1.

This question was generally answered well, although greater care needed to be taken to ensure that the marginal cost curve cuts the average cost curve at the latter's minimum point.

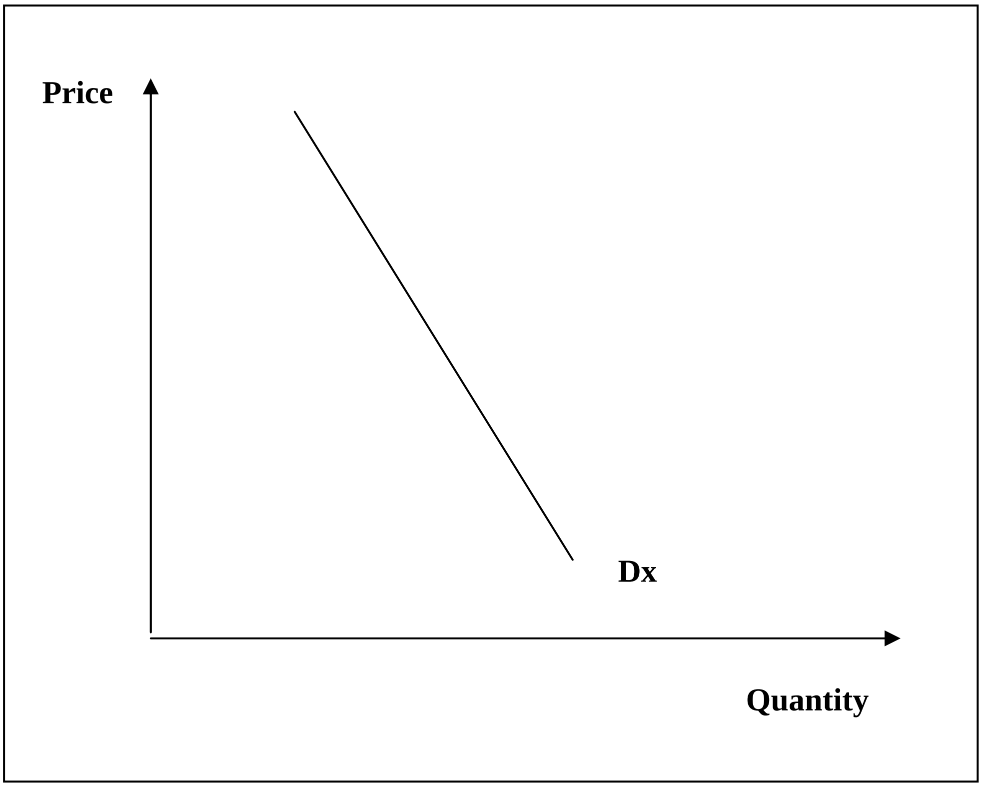
28 (i) A demand curve with price elasticity of −1 throughout its entire length.



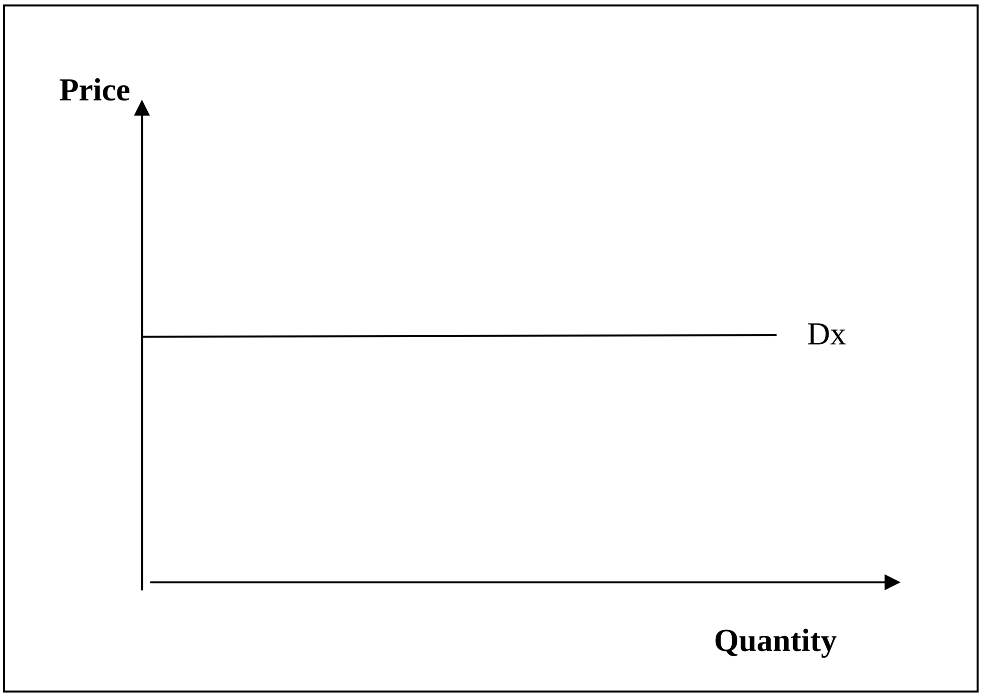
(ii) A demand curve with zero elasticity throughout its entire length.



(iii) A demand curve for a good with no substitutes.



(iv) A demand curve with infinite price elasticity throughout its entire length.



This question was generally answered well with many candidates obtaining full marks. Some candidates confused zero elasticity with infinite elasticity.

29 (i) 4 units

At 4 units the gap between total revenue and total cost is greatest.

(ii) 4 units

(iii) Output would be unchanged.

(iv) £421 although £420 would be an acceptable answer.

The majority of the answers to parts (i) to (iii) of this question were correct but many candidates failed to provide an answer or the correct answer to part (iv).

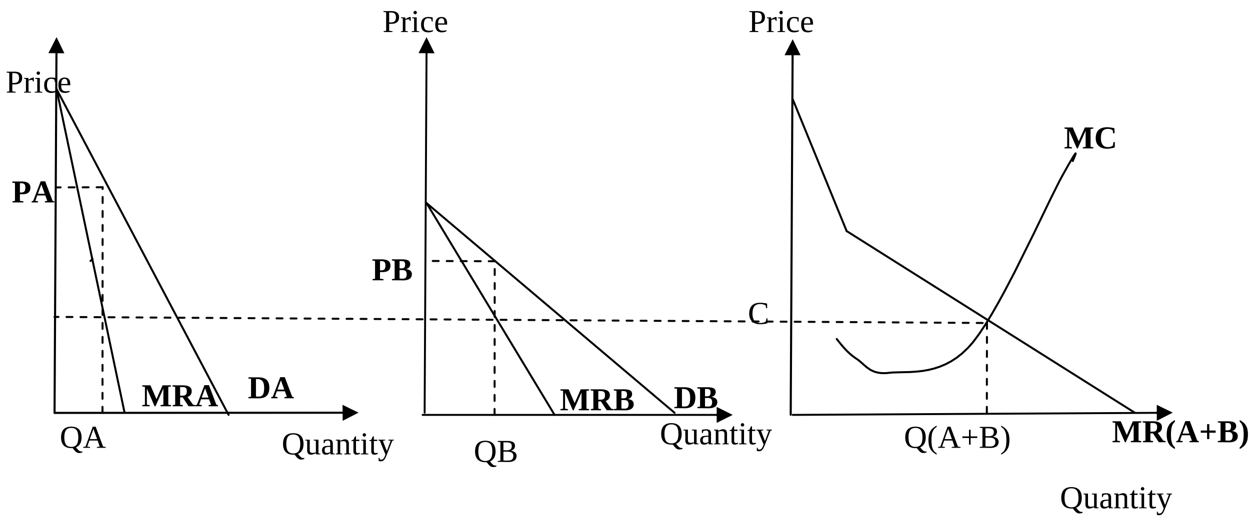
30 (i) A vertical merger is a merger whereby two firms in the same industry at different stages of the production process merge. An example could be a car producer that buys its engine maker.

(ii) A horizontal merger is a merger between two firms in the same industry at the same stage of the production process. For example, a bank merges with another bank.

(iii) A conglomerate merger is where firms in totally separate industries merge. For example, a supermarket merges with an insurance company.

Answers to all three parts were generally of a good standard and most candidates provided useful examples.

31 (i)



Market A has relatively inelastic demand (DA) compared to Market B (DB). The resulting MR curve for both markets is MR(A+B). The Marginal cost equals marginal revenue overall at output Q(A+B). The profit maximising firm will equate the marginal cost C to marginal revenue in each market leading to price PA in market A and price PB in market B with sales QA in market A and QB in market B. The result is the price charged for an identical product is higher in market A than in market B so we have third degree price discrimination.

(ii) An example of second degree price discrimination is an electricity company that charges a high price for the first so many kilowatts, the amount that would be used for lighting and running appliances and for which there is no substitute. Additional kilowatts are charged at a much lower rate as there are fuel substitutes for heating and cooking.

Also could mention marketing strategy used by firms of buy a certain number of units, would incur a percentage discount.

An example of third degree price discrimination is different-priced seats on buses for children, adults and pensioners.

This response to this question was generally poor. Many candidates provided the correct diagrams in the two separate markets and identified the prices in markets A and B. However, the result for the combined markets was often omitted or was incorrect.

32 Product considerations – include issues such as quality and reliability as well as branding packaging and after sales service.

Pricing considerations include issues such as pricing in relation to competitor products, use of discounts, payment terms, and also whether to practice price discrimination.

Place considerations involves issues such as the products distribution network, the location of retail outlets, warehousing of the product and method of transportation to market.

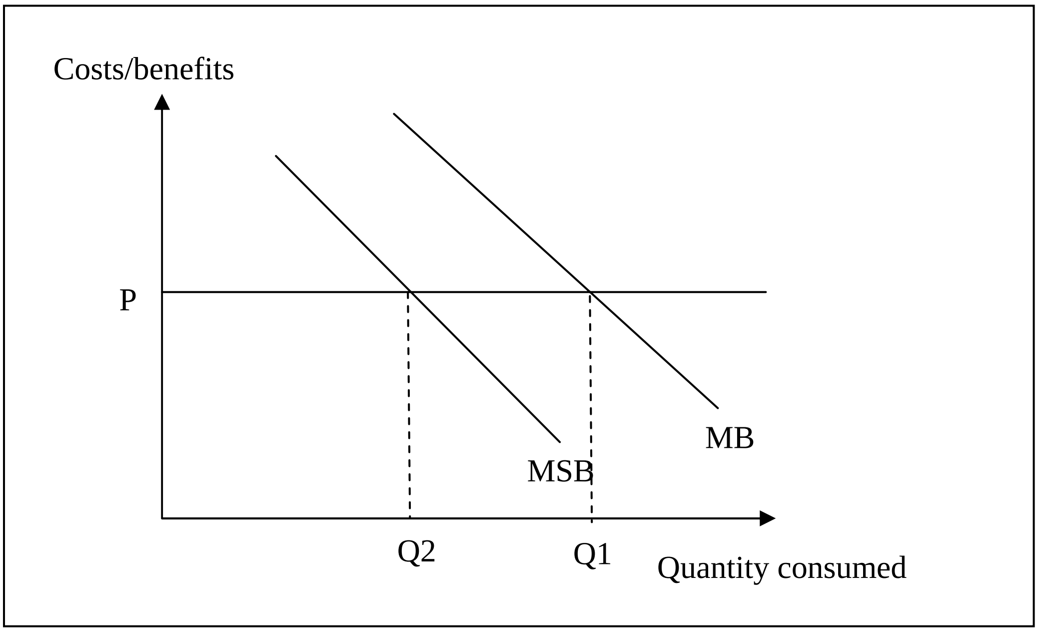
Promotion considerations include the amount and type of advertising, selling techniques, special offers, trial discounts and other methods of stimulating interest in the product such as viral marketing, public relation stunts etc. [4]

This question was generally answered well and many candidates obtained full marks.

33 (i) (a) A negative externality in consumption occurs when the marginal social benefit (MSB) of consuming something is less than the marginal private benefit (MB).

(b) An example would be when people use their cars other people suffer from the exhaust fumes, someone playing their radio loud in a public place can lead to disruption for others, smokers can similarly upset others because of the smoke they generate.

(ii)



In the diagram the marginal social benefit (MSB) is below the marginal private benefit (MB).

The result is that at a market price P the private consumption will be Q1 while the optimal social consumption level would be Q2. The free market leads to consumption over what is socially desired in the presence of negative consumption externalities.

The first part of the question was generally answered well. But very few candidates provided the correct graph for the second part and so very few responses scored the full mark for this question. Alternative correct answers were accepted for this question.

34 (i) Voluntary unemployment. A worker who is registered as part of the labour force but is not prepared to immediately accept a job at the going wage rate for his skills is voluntarily unemployed.

Involuntary unemployment. A worker who is registered as unemployed and is prepared to accept a job immediately at the going wage rate for their skills is involuntarily unemployed.

(ii) People are more likely to choose to be voluntarily unemployed on a long term basis if:

- high state benefits for being unemployed reduce the opportunity cost of being unemployed
- high rates of tax on earned income reduce the incentive to work - finding out about jobs and travelling to interviews is expensive (i.e. high search costs)

- retraining is difficult to obtain and / or expensive

Generally answered well.

35 (i) This year's budget deficit may be financed by bond sales which will increase the size of the general government debt. A higher government debt will then impact upon next year's budget deficit because interest on the debt is part of the government expenditure used to calculate the budget deficit.

(ii) The general government debt of a country is the outstanding stock of government bonds in the market. The higher a country's government debt the higher the stock of bonds available on the market and, other things being equal, the higher the interest rate. Apart from this, governments with a high government debt tend to be distrusted by the financial markets. The markets may attach a higher risk to countries with high government debts for fear that the government may ultimately redeem the debt by printing money which could lead to inflation. This extra inflation risk will tend to be priced into the rate at which the government can borrow.

While part (i) was generally answered well, the responses to part (ii) were often significantly weaker. Very few candidates specifically linked high national debts to market fears and the risk of inflation if governments decided to attempt to monetize the debt.

36 (i) Deficit £50 million

(ii) Deficit £140 million

(iii) A net surplus in the capital and financial accounts means that the country is increasing its liabilities and/or decreasing its holdings of foreign assets

(iv) A rise in domestic income will lead to an increase in imports via the marginal propensity to import and hence a deterioration in the current account balance.

The answers to this question were generally disappointing. Most candidates answered parts (i) and (ii) correctly. But the other parts were often poorly answered showing a lack of understanding.

37 (i) Firms might wish to grow to increase their market share and ultimately establish greater market power and subsequently attain a higher level of profits. Firms also grow to benefit from economies of scale and therefore cut unit costs which further enhances profitability. In some instances, firms diversify to reduce risk and establish their place in what is sometimes a very aggressive market environment.

Sometimes growth is closely linked to the key objectives of managers such as managerial status, prestige, promotion and salary. Business growth might be essential if the business is to successfully manage change and at the same time, deal with the many uncertainties of the business environment.

(ii) The growth/profitability relationship can operate in two ways:

Growth depends upon profitability. The more profitable the firm, the more likely it is able to raise finance for investment.

Growth also affects profitability. In the short run growth above a certain rate may reduce profitability. A firm wishing to expand its operations in an existing market will require greater advertising and marketing expenditure or a firm seeking to diversify may have to spend considerable sums on market research and employing managers with specialist skills. In both cases investment is likely to be needed for plant and machinery and the necessary finance may have to come from the firm's sales revenue. Thus some of the short-run profits will be sacrificed for long run gain.

In the long run, if growth leads to expansion into new markets where demand is growing, or to increased market power, or increased economies of scale, it may increase long-run profits. But if growth leads to diseconomies of scale or to investment in risky projects, then long-run profitability will be sacrificed for growth.

In part (i) many candidates chose to list various points rather than explain these. In part (ii) many candidates failed to explain the link between profitability and growth in the short and the long run adequately. While many candidates knew the facts, they failed to articulate the linkages well.

38 (i) Candidates should provide a full explanation of the relevant points and include any relevant diagrams.

The main solution for demand deficient unemployment advocated by Keynesian economists is an expansionary fiscal policy. The expansionary fiscal policy is usually associated with an increase in government expenditure which it is believed will then have a multiplier effect on aggregate demand. The simple multiplier is given by 1/MPS where MPS is the marginal propensity to save (or equivalently 1/(1- MPC) where MPC is the marginal propensity to consume out of disposable income). An alternative to increasing government expenditure is cutting the tax rate which should in turn lead to increased demand in the form of higher consumption and investment, although

Keynesians regard this as a less effective means of stimulating aggregate demand.

(ii) The main criticism of Keynesian expansionary fiscal policies concerns the possible crowding out effects. A fiscal expansion which is financed by borrowing may have the effect of raising national income but the increased bond sales will depress bond prices and raise the real interest rates and the increase in national income raises money demand which for a given money stock requires a higher interest rate to clear the money market. Higher interest rates may reduce private sector expenditure.

Expansionary fiscal deficits not matched by similar percentage increases in GDP will also have the effect of raising the national debt to GDP ratio, which can undermine confidence as business and consumers start to forecast future government expenditure cuts or tax rises, this lack of confidence can then hit consumer and investment demand in the economy.

Other crowding out effects include the tax effect whereby an increase in government expenditure which is financed by taxation will reduce consumer demand and firms' investment expenditure. Also there are expectations effects. An increase in government expenditure financed by borrowing will lead to expectations of future increases in taxes which will lead to increased saving and reduced investment by firms. Finally, critics point out that Keynesians ignore potential supply side effects, a fiscal expansion may lead to a tightening of the labour market and inflationary effects on the economy which will reduce investment and the demand for labour.

This question was in general poorly answered. Many candidates focused on demand deficient unemployment whilst ignoring the solutions. Also there was not a sufficient understanding of some of the criticisms that have been levelled against the Keynesian policy prescriptions in the second part of the question.

END OF EXAMINERS' REPORT