

PUBLIC FINANCE

Diploma stage examination

16 June 2006

MARKING SCHEME



Question 1

This answer draws upon study sessions 1, 2 and 6 of the OLM.

- (a) Price elasticity of demand (ped) is a measure of the responsiveness of demand to changes in price, other things remaining equal. 1 ½

Inelastic demand refers to when a given change in price, other things remaining equal, generates a less than proportionate change in demand. 1 ½

Demand for a good or service is likely to be inelastic when:

- It is essential eg basic foodstuffs.
- It has no close substitutes eg bus services in rural areas for passengers who have no car.
- Expenditure upon it occupies a very small proportion of total expenditure eg salt.
- Price is not a major consideration in the purchase decision eg children's car seats.

1 mark per point and appropriate example, to a maximum of 4

- (b)

| | Fare | Revenue (£1,000) | Usage |
|-------------|------|------------------|-----------|
| 1999 | 1.00 | 3,050 | 3,050,000 |
| 2004 | 1.50 | 4,400 | 2,933,333 |

$$\begin{aligned} \text{Ped} &= \frac{\% \text{ change in quantity demanded}}{\% \text{ change in price}} \\ &= \frac{116,667/3,050,000 \times 50/100 \times 100}{3.83\%/50\%} \\ &= 0.08 \end{aligned}$$

Thus demand for the tramway is very inelastic. 5

- (c) Percentage price increase 2001 was $10/110 \times 100 = 9.1\%$

Usage data was as follows

| | Fare (£) | Revenue (£1,000) | Usage |
|------|----------|------------------|-----------|
| 2000 | 1.10 | 3,170 | 2,881,818 |
| 2001 | 1.20 | 3,620 | 3,016,666 |

$$\text{Thus percentage increase in usage} = \frac{134,848}{2,881,818} \times 100 = 4.7\%$$

Thus in 2001 a 9.1% price increase coincided with a 4.7% increase in usage. Usage must have been inflated significantly by the car park price increases as, other things being equal, a price increase would normally lead to a fall in demand.

However, we cannot be precise about the impact of the car park price increase upon usage, as we cannot disentangle the effects of the fare change, the parking price change and any other factors that may have affected the use of the tramway that year. 6

- (d) A regressive tax is a tax where the proportion of the tax base paid as tax falls as the tax base increases. 2
- VAT has commonly been criticised for being regressive; ignoring the relatively small number of exempt, zero rated and lower rated goods and services, it is levied at a constant rate (17.5%) upon the value of expenditure undertaken. Since people on lower incomes typically spend a larger proportion of their income (and save a smaller proportion) than those on higher incomes they pay a higher proportion of their income on VAT.
- While one could then say that VAT is thus regressive against income, it is not actually regressive but proportionate in terms of the above definition, as all people will be paying a constant rate of 17.5% of expenditure as VAT. 6
- (e) Good practice in charge setting includes:
- Ensuring that charging policy is clearly linked to organisational objectives, for example, environmental considerations; this in turn would inform what the relationship should be between price and unit cost. 1 ½
- While precise calculations are not in practice feasible, decisions should be based upon an informed view of price, based, for example, on how far textbook conditions for inelastic demand exist. 1 ½
- Reliable costing information capable of identifying full and possibly marginal cost at different activity levels is required. 1
- Charges should be fully reviewed annually using updated cost and demand information. 1
- Periodic reviews should examine whether charges are actually contributing to the achievement of organisational objectives. 1
- (f) (i) Criteria of a 'good' national tax are:
- Efficiency ie minimal distortion of taxpayer's economic choices.
 - Equitable in terms of being related to taxpayer's ability to pay.
 - Equitable in terms of being related to the value of taxpayer's receipt of benefits from government expenditure.
 - Low administrative cost; ie minimising the sum of administrative and compliance cost.
 - Certainty; i.e where taxpayers can forecast precisely their tax liabilities in different circumstances. 5
- (ii) Supply side economists concentrate upon the disincentive effects of high rates of national taxes; for example,
- Income tax – disincentive to work harder for promotion.
 - Corporation tax – disincentive to generate (or declare) profits.
 - Capital gains tax – disincentive to invest. 3
- (40)**

Question 2

This answer draws upon study sessions 3, 8 and 9 of the OLM.

(a)

The introduction of resource accounting in 2001/02 required conventional trusts to break even each year.

In the face of short-term financial problems trusts can have access to 'brokerage' ie the transfer of a repayable cash sum from another NHS organisation.

In addition they can borrow to meet short-term operational requirements provided that all such borrowing has been repaid by the end of the financial year. Any such borrowing would typically be organised elsewhere within the NHS.

Concerning capital expenditure they face external finance limits (efl's) set by the Department of Health, which can be positive, negative or zero. Trusts with positive efl's can draw down public dividend capital from the Department of Health. This is not repayable but requires payment to the department of a 3.5% 'dividend' on an annual basis.

While foundation trusts are expected to break even they have substantial freedom to determine their own levels of operational and capital expenditure and the best way of financing these.

This is constrained by a Prudential Borrowing Code (PBC) consisting of:

- A Prudential Borrowing Limit (PBL) set so that long-term borrowing does not lead to any breach of five financial ratios. ie minimum debt to capital ratio, minimum dividend cover, minimum interest cover. minimum debt service cover and minimum debt service to revenue
- An approved short-term borrowing facility repayable within 24 months.

PBC's are set separately by Monitor for each foundation trust as part of its terms of authorisation.

Foundation trusts can carry out an extensive range of treasury management activities, while conventional trusts are restricted to the investment of cash surpluses to a maximum of £50,000.

1 mark per point made to a maximum of 9

(b) (i) Within this market certificates of deposit (CDs) are negotiable instruments issued by banks in return for time deposits, normally of 3 or 6 months duration. As CDs are negotiable they are liquid, consequently bearing a slightly lower rate of interest than a conventional time deposit for the same period. As such they are a very suitable short-term investment for risk-averse public sector treasury managers.

(ii) The local authority money market is where local authorities raise funds by issuing bills (which are negotiable) and accepting short-term deposits (which are not). The latter is the higher volume activity of the two. Local authorities and other public sector bodies deposit funds short term in this market. Although deposits are not negotiable they can be made for as short a period as overnight, thus satisfying managers' needs for liquidity.

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The bills issued by local authorities, while of less significance than the deposits attracted by them, share the same characteristics as treasury bills ie issued at a discount, are of short duration, are negotiable as stated above and are guaranteed by the Bank of England. Consequently they too are very liquid assets and would be appropriate vehicles for public sector investment.
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(iii) Eurocurrency money markets are markets for short-term assets denominated in the currency of another country. (For example, US dollar assets held and traded by UK institutions.) As such they expose investors to an additional element of risk i.e. exchange rate risk. As such they would generally not be appropriate for public sector managers. Local authority managers would require Treasury approval to invest in such assets.

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(c) Government bonds are long-term securities issued on behalf of the government by the Debt Management Office. 10 years would be a typical time to maturity from issue although the government has recently proposed issuing bonds with maturities of up to 50 years.

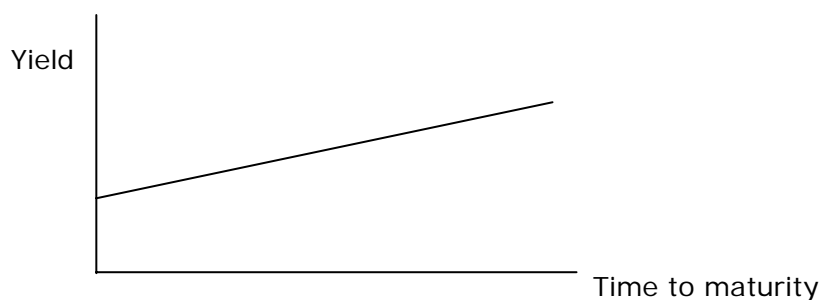
Bonds are issued in units of £100, yield a fixed rate of interest and are redeemed at maturity for their issue value.

They are sometimes known as gilt-edged securities because of the extremely low risk that government would default on interest or principal payments.

An active secondary market exists for government bonds enhancing their liquidity.

This generates an inverse relationship between the rate of interest payable on new bonds and the secondary market price of existing bonds. For example, an increased rate of interest offered on a new issue of bonds (which is often necessary to make the issue attractive) would depress the secondary market price of existing bonds so that the yield on existing bonds matches that of new bonds.

The longer an existing bond has to go to maturity the greater normally the risk of this occurring; this greater risk will lead to lower secondary market prices and hence greater yields the further the bond is from maturity. This generates the upward sloping yield curve –



1 mark per point made to a maximum of 9

(30)

Question 3

This answer draws upon study session 5 of the OLM.

(a) Rationales include:

- To encourage and support local government services eg education, that are of significance to the country as a whole.
- To reflect local differences in capacity to raise local taxation and in spending needs.
- Irrespective of the above point, to provide a subsidy to local taxpayers as a whole.
- To encourage or require local authorities to reflect central government policy in local service provision.
- To act as a 'pump primer' in the development of local activity.

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(b) The advantages of formula based approaches include:

- They provide an objective basis for grant decisions, minimising the role of potentially subjective judgements.
- By reflecting differences in recipients' characteristics eg local authorities' tax raising capacities they can act as a means of equalisation.
- Formulae are transparent and can thus enhance the legitimacy of distribution decisions.
- Formulae are economical to administer for both central government and grant recipients, compared to, for example, decisions based upon corporate plan submissions.

Disadvantages

- The construction of the formulae and/or the data used within them may become out of date and not reflect current circumstances.
- Problems may exist in the comparability of data across recipients, undermining the fairness of formula based allocations.

1 ½ marks per point well made up to a maximum of 9

(c) A fixed cost allocation was introduced for core corporate costs reflecting the fact that these tend to be fixed across authorities of different sizes.

The area cost adjustment for areas with high labour costs was extended and regional groupings introduced.

Greater resource equalisation was introduced under FSS, tending to redistribute grant to urban areas in the north and midlands.

To phase in the effects of this a system of floors and ceilings on annual grant changes was introduced. Floors ensured all received increases at least equal to the rate of inflation.

1 ½ marks per point well made up to a maximum of 6

(d) Generally raise the profile of grant application work.

Ensure sufficient resources are devoted to the work with one person responsible for the quality of the activity.

Apply good project management practice to ensure that deadlines are met.

Regularly review legislation and related information about eligibility and required procedures.

Incorporate monitoring of grant claims into normal budgetary control procedures.

Liaise with external audit to ensure that claims requiring it receive external certification at the appropriate time.

Utilise internal audit to assure accuracy of data and robustness of systems generating it.

Generate and monitor management information on grants applications such as income received, deadlines met etc.

Ensure figures in claims supported by comprehensive working papers.

Ensure effective review of applications occurs prior to their submission.

1 mark per point made up to a maximum of 10

(30)

Question 4

This answer draws upon study sessions 1 and 3 of the OLM.

- (a)** The term 'economic cycle' refers to the cyclical variations that have occurred in gross domestic product over time in nearly all capitalist/market-based economies; while the exact duration varies, typically a cycle might last 5 or 6 years.

In modern western economies government finances are often in deficit during cyclical downturns and move into surplus during upturns, at least so far as the current budget is concerned. This is because in downturns government revenue is depressed by low levels of personal income and expenditure and also company profits leading to corresponding low flows of taxation. At the same time government current expenditure is boosted by increased social security and other transfer payments, for example, to the unemployed and those on low incomes. During upturns the converse typically occurs with higher economic activity generating increased tax revenues and the demand for social security and other forms of government support falling.

6

- (b)** **(i)** The 'golden rule' states that, over the economic cycle, the government will borrow only to invest and not to fund current expenditure.

Consequently the rule is met when, over a whole economic cycle, the government's current budget is in surplus or balanced. Clearly the addition of £12bn surplus on the government's current budget would increase the chances of the rule being met.

3

(ii) The government's current budget is arrived at by stripping its capital expenditure (ie expenditure on assets with an expected life of more than one year) out of the overall budget, which is then considered separately as the capital budget. The current budget is thus made up of government current expenditure and government revenue. Since the golden rule requires only that the current budget balance over the cycle it exerts no control over government borrowing used to fund investment. This is controlled via the sustainable investment rule, which states that government borrowing as a whole should be consistent with Public Sector Net Debt being maintained at below 40% gross domestic product over the economic cycle.

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- (c)** There are four traditional economic policy objectives, all of which vary in achievability across the cycle.

- Full employment ie a high proportion (97%) of the working population employed; clearly this is more likely during economic upturns with high levels of productive activity.
- Low inflation ie low rate of growth of prices; this is more achievable in economic downturns when relatively low levels of income and expenditure mean there is little upward pressure placed upon prices.
- Economic growth ie sustained growth in gross domestic product; this is again more achievable during economic upturns when output tends to be buoyant.
- Balance of payments equilibrium; easier to achieve generally in downturns; in upturns high demand tends to suck in disproportionate amounts of imports; consequently cash outflows from a country grow with no (or a lower) corresponding increase in inflows.

8

(d) A significant issue of government bonds is likely to be associated with an increase in interest rates to make the issue attractive. The consequences of this for each economic objective could be argued to be as follows:

- Full employment – less likely as higher interest rates tend to depress output by making credit financed expenditure more expensive.
- Low inflation; encouraged by higher interest rates as more expensive borrowing reduces expenditure and requires lower prices to encourage customers to buy.
- Economic growth – tends to be discouraged as higher interest rates discourage borrowing and expenditure and thus lead to lower output.
- Balance of payments – there are two main effects of higher interest rates, both positive. Inward financial investment becomes more attractive generating more financial inflows to the country; secondly the lower levels of economic activity discussed above tend to lead to lower imports reducing cash outflows.

8

This question to be marked on the basis of 1 mark per point made up to the specified maxima

(30)