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UNIVERSITY OF LONDON

279 0115 ZA

BSc degrees and Diplomas for Graduates in Economics, Management, Finance and the Social Sciences, the Diploma in Economics and Access Route for Students in the External Programme

Monetary Economics

Wednesday, 17 May 2006 : 10.00am to 1.00pm

Candidates should answer **TWELVE** of the following **EIGHTEEN** questions: **EIGHT** from Section A (5 marks each), **THREE** from Section B (10 marks each) and **ONE** from Section C (30 marks). **Candidates are strongly advised to divide their time accordingly.**

PLEASE TURN OVER

SECTION A

Answer **eight** questions from this section (5 marks each).

Specify whether the statements below are true, false or uncertain. Explain your answer in a short paragraph.

1. In an efficient market, it is impossible for investors to make unanticipated gains.
2. If the demand for money is stable, an increase in money supply growth has no effect on macroeconomic variables.
3. Covered interest parity implies that interest rates between two countries are equal.
4. In a model with rational expectations, discretionary monetary policy has no effect on real economic variables.
5. The time inconsistency problem in discretionary monetary policy can be overcome if policy makers have greater information than private economic agents.
6. Keynes' liquidity preference theory is inconsistent with investors holding a diversified portfolio.
7. The liquidity trap is a situation in which excess liquidity in the economy leads to runaway inflation.
8. Productivity shocks are the principal driving force in real business cycle models.
9. Yield curves for government bonds usually slope downwards, because holding long-dated bonds is less risky than holding short-dated bonds.
10. When setting interest rates according to a 'Taylor Rule', central banks should increase the nominal interest rate by more than the increase in the rate of inflation, in order to ensure that inflation is stable.
11. There is no necessary connection between a country's current account deficit and its fiscal deficit.
12. The use of the US dollar as the principal international reserve currency enables the United States to run a current account deficit continuously at zero cost.

SECTION B

Answer **three** questions from this section (10 marks each).

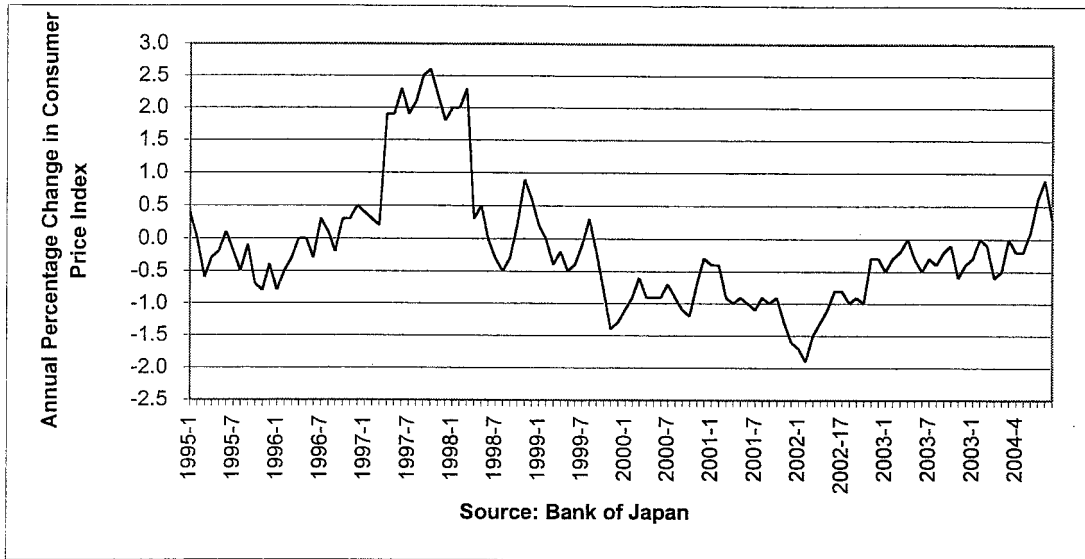
13. A stylised version of the long run Phillips Curve can be written as:

$$\pi = \pi^e - \beta(u - u^*) + \varepsilon$$

- Where
- π = actual rate of inflation
 - π^e = expected rate of inflation
 - β = a parameter capturing the impact of deviations in unemployment from the natural rate
 - u = level of unemployment
 - u^* = natural rate of unemployment
 - ε = a random error term

- (a) Explain and illustrate diagrammatically, the implications for any trade off between inflation and unemployment of this stylised version of the Phillips Curve.
- (b) If, in the long run, the expected rate of inflation (π^e) is 2 per cent, what does this model predict about the actual rate of inflation (π) in the long run?

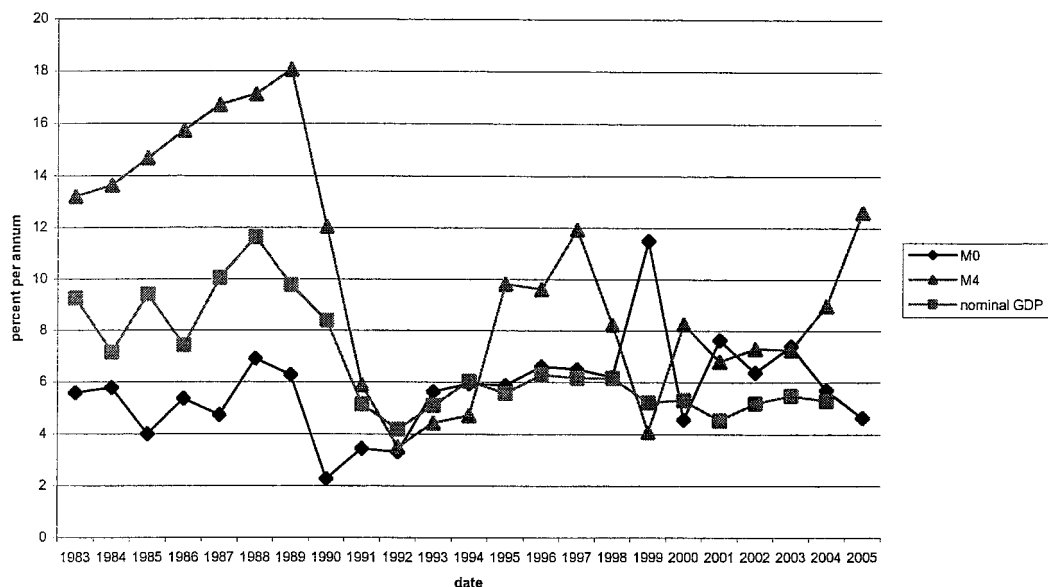
Figure 1
CPI Inflation (Japan)



14. Figure 1 above provides data on inflation in Japan .
- Use the information in Figure 1 to distinguish between ‘deflation’ and ‘disinflation’.
 - Explain why, for most of the period after July 1998, open market operations alone would be less useful as an instrument for stabilising the Japanese economy than for most of the period before July 1998.
15. Figure 2 below contains data on the growth rates of the broad monetary base (M0) and broad money (M4) for the United Kingdom. It also contains data on the growth of nominal GDP.
- Why might M4 have grown more quickly than M0 for most of this period?
 - What does the figure suggest has happened to the velocity of circulation of money in the United Kingdom over the period of the diagram?
 - Why might such changes in the velocity of circulation have taken place?

(question continues on next page)

Figure 2
UK Money Growth Rates



16. Table 1 below contains some macroeconomic data for China.
- What light do these data shed on the monetary and exchange rate policy pursued by China?
 - Do the data suggest that China has a current account surplus?
 - Do the data suggest whether the real exchange rate of China relative to the rest of the world is becoming higher or lower?
 - What might be the consequences of China's moving to a policy of allowing the yuan to float freely in the foreign exchange markets?

Table 1

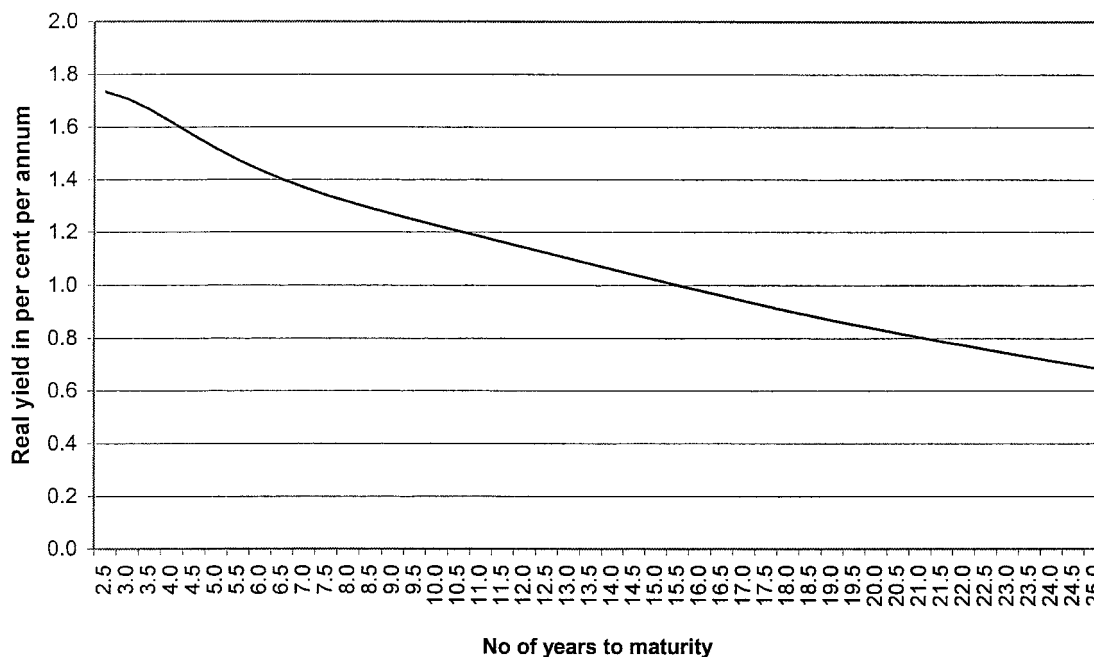
Year	Exchange rate (yuan per USdollar)	Inflation rate (consumer price index)	Ratio of foreign exchange reserves (excluding gold) to GDP	Growth rate of real GDP (percent per annum)
1995	8.32	16.90	10.71	9.00
1996	8.30	8.32	13.00	9.75
1997	8.28	2.81	15.78	8.59
1998	8.28	-0.85	15.63	7.81
1999	8.28	-1.41	15.80	7.18
2000	8.28	0.26	15.59	8.39
2001	8.28	0.46	18.10	7.20
2002	8.28	-0.77	22.33	8.91
2003	8.28	1.16	27.75	10.20
2004	8.28	3.99	35.72	9.90

SECTION C

Answer **one** question from this section (30 marks).

17. Figure 3 shows three-month forward real yields on UK Government securities.

Figure 3
UK Forward Gilt Yield Curve as at 12th April 06



Source: Bank of England

- How are forward rates of interest derived from spot rates of interest and what is the rationale for using them to gauge expectations of future spot rates of interest?
- How does the expectations theory of the term structure explain the negative slope of the forward rate term structure?
- Why might forward rates of interest not accurately reflect expected future spot rates?

18. In the Baumol-Tobin model of the transactions demand for money, it is assumed that a household has a monthly income (Y), which may be deposited in a bank account, or some other asset, which bears interest at a nominal rate i per month. The household can make withdrawals of cash from the account at a fixed cost of c per withdrawal. The household spends its entire income over the course of the month.
- (a) If the household makes n withdrawals of cash evenly spaced over the month, how much does it cost in terms foregone interest and charges for making withdrawals?
 - (b) Show that a household, which minimizes these costs, will hold money balances approximately in proportion to the square root of its income and the size of the fixed withdrawal cost, and inversely proportional to the nominal rate of interest.
 - (c) How do the predictions of this theory differ from those of the quantity theory of the demand for money?
 - (d) How much empirical support is there for the predictions of the Baumol-Tobin theory, and how reasonable are its underlying assumptions?
 - (e) Suppose a household has an income of £2000 per month after tax, the cost of withdrawing money from an interest bearing account is £1.50 per withdrawal, and the interest rate on money held in the account is 3 percent per year (or 0.25 percent per month). How many withdrawals should the household make per month? How big should its average cash balance be?

END OF PAPER

