

**Diploma Paper 2: Macroeconomics Lent Term 2012**  
**Problem set 1: Money and interest rates**  
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**Please bring problem set to class on Thursday February 9.**

1. (TRIPOS 2009) The Bank of England announced the introduction of ‘quantitative easing’ (QE) in March 2009. Discuss how QE is likely to affect the money supply, bank lending, long term interest rates and economic activity in the UK.

**Readings**

<http://www.bankofengland.co.uk/monetarypolicy/pdf/qe-pamphlet.pdf>

<http://www.bankofengland.co.uk/publications/quarterlybulletin/qb090201.pdf>

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## Monetary Economics Supervision 1

### Money and Interest Rates

#### Section A

- A.1 Explain how an increase in the minimum reserve requirement is likely to affect the interbank rate, the monetary base and the money multiplier.
- A.2 Give three reasons why the yield curve could be upward-sloping.

#### Section B

- B.1 Using supply and demand in the bond market, show graphically and explain intuitively what the effect is on current U.K. bond prices and the nominal interest rate in the following cases:
- (a) Financial markets expect a future decrease in UK bond prices (e.g. due to greater government financing needs).
  - (b) The adoption of inflation targeting by the Bank of England reduces inflation expectations.
  - (c) Contagion from financial turmoil abroad leads to a reduction of liquidity in U.K. bond markets.
- B.2 Suppose the Bank of England's repo rate is 4.5% and the financial pages in the newspaper contain the following information: [Tripos 2006]

UK GILTS	Interest yield	Redemption yield
Tr 7 <sup>1</sup> <sub>2</sub> pc '06	7.32	4.31
Tr 4 <sup>3</sup> <sub>4</sub> pc '10	4.65	4.22
Tr 8pc '15	6.09	4.09
Tr 4 <sup>1</sup> <sub>4</sub> pc '55	3.76	3.68

- (a) Compute the price of the 7<sup>1</sup><sub>2</sub>pc '06 Treasury gilt per £100 face value. Explain how this gilt price is likely to be affected if the Bank of England reduced the repo rate by 25 basis points.
- (b) Draw the yield curve. Provide at least two reasons why the yield curve could have that shape.
- (c) Assuming the expectations theory of the term structure holds, estimate the 5-year interest rate in 2010. Explain why there may be a term premium that increases with the term to maturity and how that would affect the estimate.

#### Section C

- C.1 The slope of the yield curve is a good indicator of future economic activity. Discuss. [Tripos 2002]

## Main readings

- Mishkin (2009), *The Economics of Money, Banking and Financial Markets*, 9th edition, chapters 3-6, 13-16, 19.

## Supplementary references

- Blanchard (2010), *Macroeconomics*, 5th updated edition, ch 4, 14-15.
- Bofinger (2001), *Monetary Policy: Goals, Institutions, Strategies and Instruments*, appendix 8.1-8.4.
- Clews (2005), “Implementing monetary policy: Reforms to the Bank of England’s operations in the money market”, *Bank of England Quarterly Bulletin* (Summer)
- Estrella and Mishkin (1996), “The Yield Curve as a Predictor of U.S. Recessions”, Federal Reserve Bank of New York, *Current Issues in Economics and Finance* 2(7)
- Estrella and Trubin (2006), “The Yield Curve as a Leading Indicator: Some Practical Issues”, *Current Issues in Economics and Finance* 12(5)
- Haldane and Read (1999), “Monetary Policy and the Yield Curve”, *Bank of England Quarterly Bulletin*, May.
- Howells & Bain (2008), *The Economics of Money, Banking and Finance: A European Text*, ch 16.
- Hubbard (2007), *Money, the Financial System, and the Economy*, ch 3-7.
- Peacock (2004), “Deriving a market-based measure of interest rate expectations”, *Bank of England Quarterly Bulletin* (Summer)