



**College of Commerce
Division of Economic and Financial Studies
Economics Department**

UNIT OUTLINE

ECON842: PRINCIPLES OF MONETARY ECONOMICS

Second Semester, 2006

Lecturer: Joshua Kirkwood

Students in this unit should read this unit outline carefully at the start of semester. It contains important information about this unit. If anything in it is unclear, please consult one of the teaching staff in the unit.

TEACHING STAFF: Joshua Kirkwood (kirkwoodj@rba.gov.au)

CLASSES:

There will be one 3 hour lecture on Tuesday evenings commencing at 6.15pm in E5A 118.

UNIT WEB PAGE

- The web page for this unit can be found at:
<http://www.econ.mq.edu.au/courses/econ842/index.htm>
- Lecture notes will be available on this page weekly:
http://www.econ.mq.edu.au/courses/econ842/lecture_notes.htm

ASSESSMENT

Essay (due 17 October)	30%
Final Examination	70%

TOPICS OUTLINE

1. Role of Money in the Economy
2. Rational Expectations and Monetary Theory
3. Money Supply Process
4. Optimum Money Supply
5. Demand for Money
6. Financial Model Building
7. Theory of Interest Rates
8. Term Structure of Interest Rates
9. Ricardian Equivalence
10. Credit Rationing

TEXTBOOKS AND GENERAL REFERENCES

Textbook:

Lewis, M. K. and P. D. Mizen, *Monetary Economics*, Oxford: Oxford U. P., 2000.

Reference Books:

Eatwell, J, M. Milgate and P. Newman (eds.) *The New Palgrave: A Dictionary of Economics*, London: Macmillan, 1987.

Friedman, B.M. and F.H. Hahn, *Handbook of Monetary Economics*, Vols. I and II, Amsterdam: Elsevier Science Publishers, B.V., 1990.

Green, C.J. and D. T. Llewellyn (eds.) *Surveys in Monetary Economics*, Vol. 2: Financial Markets and Institutions, Oxford: Blackwell, 1991.

*Handa, J. *Monetary Economics*, London: Routledge, 2000.

Hoover, K. *The New Classical Macroeconomics: A Sceptical Inquiry*, Oxford: Basil Blackwell, 1988.

Keynes, J.M., *The General Theory of Employment, Interest and Money*, N Y: Harcourt Brace and World, 1936.

Mishkin, F.S. and S. G. Eakins, *Financial Markets and Institutions*, N.Y.: Addison-Wesley, 2nd ed., 1998.

Phelps, E.S. (ed.) *Recent Developments in Macroeconomics*, Aldershot: Edward Elgar, 1991.

Scarth, W. M. *Macroeconomics – An Introduction to Advanced Methods*, 2nd ed., Dryden, 1996.

*** = recommended reading**

1. FUNDAMENTALS OF MONETARY THEORY: ROLE OF MONEY IN THE ECONOMY

- A barter exchange economy
- A monetary economy à la Patinkin
- Transaction costs and a monetary economy
- The Walrasian general equilibrium system
- Say's Law
- The Classical dichotomy
- Patinkin's arguments for the invalidity of the Classical dichotomy

*Clower, R.W. (1969), "Introduction", Reading 10, 11, 12, 13, 14.

*Clower, R.W., "The Anatomy of Monetary Theory", *American Economic Review*, 67 (February 1977), 206-212.

Duffie, D. "Money in General Equilibrium Theory," in Friedman and Hahn (1990), 82-100.

Hahn, F.H., "Liquidity", in Friedman and Hahn (1990), 64-80.

*Handa, J. (2000), Chs. 1, 3, 17.

Howitt, P. "Money Illusion", in *The New Palgrave* (1987), 518-9.

*Lewis, M. K. and P. D. Mizen (2000), Chs. 1, 2, 3, 4.

Niehans, J., "Money in a Static Theory of Optimal Payment Arrangements", *Journal of Money, Credit and Banking*, 1, (Nov 1969), 706-726.

Niehans, J., (1978), Chs. 1, 6.

Patinkin, D., *Money, Interest and Prices*, 2nd ed, New York: Harper & Row, 1965. chs. 1-8.

*Patinkin, D. "Neutrality of Money," in *The New Palgrave* (1987), 639-645.

Samuelson, P.A., "Samuelson on the Neoclassical Dichotomy: A Reply", *Canadian Journal of Economics*, 5 (May 1972), 283-292.

Thornton, D. L. "Money in a Theory of Exchange," *FRB of St Louis Review*, 82, 1 (Jan/Feb 2000), 35-60.

2. RATIONAL EXPECTATIONS AND MONETARY THEORY

- The rational expectations hypothesis
- Learning
- Critique

Begg, D.K.H. *The Rational Expectations Revolution in Macroeconomics: Theories and Evidence*, Phillip Allan, 1982.

Bullard, J.B. "Learning, Rational Expectations and Policy: A Summary of Recent Research," *Federal Reserve Bank of St Louis Review*, 73 (Jan/Feb 1991), 50-60.

Carter, M. and R. Maddock, *Rational Expectations - Macroeconomics for the 1980s?* Macmillan, 1984.

Dotsey, M. "The Importance of Systematic Monetary Policy for Economic Activity," FRB of Richmond *Economic Quarterly*, 85/3 (Summer 1999), 41-59.

*Handa, J. (2000), Chs. 15, 16.

Keuzenkamp, H.A. "A Precursor to Muth: Tinbergen's 1932 Model of Rational Expectations," *Economic Journal*, 101 (Sept. 1991), 1245-1253

*Lewis, M. K. and P. D. Mizen (2000), Ch. 9.

Lovell, M.C. "Tests of the Rational Expectations Hypothesis," *American Economic Review*, 76 (March 1986), 110-124.

McCallum (1989) Chaps. 8, 9, 10.

Maddock, R. and M. Carter, "A Child's Guide to Rational Expectations", *Journal of Economic Literature*, 20 (Mar. 1982), 39-51.

*Muth, J.F. "Rational Expectations and the Theory of Price Movement", *Econometrica*, 29 (July 1961), 315-35.

Scarth, W. M. (1996), Chapters 5, 6

Sheffrin, S.M. *Rational Expectations*, Cambridge: Cambridge U.P., 1983.

3. THE MONEY SUPPLY PROCESS

- The monetary base in Australia
- Money multiplier analysis
- Australia's institutional features
- Money supply control
- Stability of the money multiplier
- Seasonal liquidity pattern in Australia

*Brunner, K. "Money Supply", in Friedman and Hahn (1990), 357-398.

Friedman, M. and A. Jacobson Schwartz, "Definition of Money: Part 1", *Monetary Statistics for the United States*, New York, 1970.

*Handa, J. (2000), chs. 10, 11.

*Lewis, M. K. and P. D. Mizen (2000), Ch. 13.

Tobin, J., "Commercial Banks as Creators of Money" in D. Carson (ed), *Banking and Monetary Studies*, Homewood, Ill. (1963). Reprinted in J. Tobin, *Essays in Macroeconomics*, (1971).

Walter, J.R., "Monetary Aggregates: A User's Guide", FRB Richmond, *Economic Review*, 75/1 (Jan-Feb 1989), 20-28.

4. THE OPTIMUM SUPPLY OF MONEY

- The optimum quantity of money
- Theoretical problems
- Empirical problems
- Seigniorage

*Clower, R.W., "Is there an Optimal Money Supply?" *Journal of Finance*, 25 (May 1970), 425-33.

Clower, R.W., "Is there an Optimal Money Supply? II", in M. Intriligator (ed), *Frontier of Quantitative Economics*, Amsterdam: N-H, 1971, 289-99.

Freeman, S. "Resolving Differences over the Optimal Quantity of Money," *Journal of Money, Credit and Banking*, 25 (Nov 1993), 801-11.

*Friedman, M. "The Optimum Quantity of Money", in Friedman (1969).

Howitt, P. "Optimum Quantity of Money," in *The New Palgrave* (1987), 744-745.

Johnson, H.G., "Is there an Optimal Money Supply", *Journal of Finance*, 25 (May 1970), 435-442.

Klein, B., "The Competitive Supply of Money", *Journal of Money, Credit and Banking*, 6 (Nov 1974), 423-53.

Mulligan, C.B. and X. X. Sala-i-Martin, "The Optimum Quantity of Money: theory and Evidence," *Journal of Money, Credit and Banking*, 29, No. 4, Part 2 (Nov 1997), 687- 715.

Samuelson, P.A., "Non-optimality of Money Holding Under 'Laissez- Faire'", *Canadian Journal of Economics*, 2 (May 1969), 303-308.

Stein, J.L., "The Optimal Quantity of Money", *Journal of Money, Credit and Banking*, II, 4 (November 1970), 397-419.

Tobin, J., "Notes on Optimal Monetary Growth", *Journal of Political Economy*, 76 (July/August 1968), 833-859.

Tsiang, S.C., "A Critical Note on the Optimal Supply of Money", *Journal of Money, Credit and Banking*, 1 (May 1969), 266-280.

Woodford, M. "The Optimum Quantity of Money," in Friedman and Hahn (1990),

5. THE DEMAND FOR MONEY

- The Classical quantity theory
- The Cambridge equation
- Baumol's inventory-theoretic approach
- Keynes' liquidity preference theory
- Tobin's risk aversion theory of liquidity preference
- Friedman's modern quantity theory of money
- Buffer stock money
- Identification problems
- Stock adjustment and distributed lag models
- Stability analysis

Baumol, W.J., "The Transactions Demand for Cash: An Inventory- Theoretical Approach", *Western Journal of Economics*, 66 (Nov 1982), 545-556. Also in Thorn (1966).

Belongia, M.T. and J.A. Chalfant, "The Changing Empirical Definition of Money: Some Estimates from a Model of the Demand for Money Substitutes," *Journal of Political Economy*, 97 (Apr 1989), 387-97.

Bernanke, B.S. and A.S. Blinder, "Credit, Money and Aggregate Demand", *American Economic Review*, 78 (May 1988), 435-439.

de Brouwer, G., I. Ng and R. Subbaraman, "The Demand for Money in Australia: New Tests on an Old Topic," Sydney: RBA, RDP 9314., Dec. 1993.

Dickey, D.A., D.W. Jansen and D.L. Thornton, "A Primer On Cointegration with an Application to Money and Income," *FRB of St Louis Review*, 73 (Mar/Apr 1991), 58- 78.

Empirical Economics, Vol. 23, No. 3, 1998.

*Friedman, M., "The Quantity Theory of Money: a Restatement" in *Studies in the Quantity Theory of Money*, U. of Chicago P, 1958.

*Handa, J. (2000), Chs, 2, 4, 5, 6, 7, 9.

*Lewis, M. K. and P. D. Mizen (2000), Ch. 5, 6, 7, 11.

McCallum, B. T. and M. Goodfriend, "Demand for Money: Theoretical Studies," in *The New Palgrave* (1987).

Miller, M.H. and D. Orr, "A Model of the Demand for Money by Firms", *Quarterly Journal of Economics*, 80 (Aug 1966), 413-35.

*Tobin, J., "Liquidity Preference as Behaviour Towards Risk", *Review of Economic Studies*, 25 (Feb 1958), 65-86.

6. FINANCIAL MODEL BUILDING

- Pitfalls in financial model building
- Adding up constraints
- Dynamics of adjustment
- Tobin's "A General Equilibrium Approach to Monetary Theory"
- Tobin's Nobel Lecture
- Critique of Tobin

Backus, D.K., W.C. Brainard, G. Smith and J. Tobin, "A Model of US Financial and Nonfinancial Economic Behaviour", *Journal Of Money, Credit And Banking*, 12 (May 1980), 259-93.

*Brainard, W.C. and J. Tobin, "Pitfalls in Financial Model Building", *American Economic Review*, LVIII (May 1968), 99-122.

Clinton, K., "Pitfalls in Financial Model Building: Comment". *American Economic Review*, 63 (Dec 1973), 1003-4.

Ladenson, M.L., "Pitfalls in Financial Model Building: Some Extensions", *American Economic Review*, 61 (Mar 1971), 179-186.

Matthews, K. "Modelling the Monetary Sector," in Green and Llewellyn (1991), Vol 1, Ch. 6, 324-78.

*Tobin, J., "A General Equilibrium Approach to Monetary Theory", *Journal of Money, Credit and Banking*, 1 (Feb 1969), 15-29.

*Tobin, J., "Money and Finance in the Macroeconomic Process", *Journal of Money, Credit and Banking*, VIV (May 1982), 171-204.

Tobin, J. and J.B. de Macedo, "The Short Run Macroeconomics of Floating Exchange Rates: An Exposition" in J.A. Chipman and C.P. Kindlebeyer (Eds), *Flexible Exchange Rates and the Balance of Payments*, Amsterdam, N-H, 1980, 5-28.

7. THEORY OF INTEREST RATES

- The Classical theory
- The loanable funds (LF) theory
- Keynes' liquidity preference (LP) theory
- Conflict between LF and LP theories
- Tsiang's resolution of the conflict
- The Fisher effect
- Invariance of interest rate to monetary policy
- Inflation and real interest - Mundell
- Empirical test of the Fisher effect
- The Gibson Paradox
- The Darby hypothesis
- The inverted Fisher hypothesis

Carmichael, J. and P.W. Stebbing, "Fisher's Paradox and the Theory of Interest", *American Economic Review*, 83 (Sept.1983), 619-630.

Darby, M.R., "The Financial and Tax Effects of Monetary Policy on Interest Rates", *Economic Inquiry*, 13 (June 1975), 266-76.

Darby, M.R., "Some Pleasant Monetarist Arithmetic", FRB of Minneapolis *Quarterly Review* (Spring 1984), 15-19.

Green, C.J. "The Determination of Interest Rates and Asset Prices: A Survey of Theory and Evidence," in Green and Llewellyn (1991), Vol. 1, Ch. 6, 324-78.

*Handa, J. (2000), Ch. 20.

*Lewis, M.K. and P.D. Mizen (2000), Ch. 5.

Mishkin, F.S. and S. G. Eakins (1998), Ch. 5.

Milbourne, R. "Money and Finance," in S. Grenville (ed.) *The Australian Macro-Economy in the 1980s*, R.B.A. 1990, 222-276.

Monnet, C. and W. E. Weber, "Money and Interest Rates," FRB of Minneapolis *Quarterly Review*, Fall 2001, 2 –13.

Mundell, R.A., "Inflation and Real Interest", *Journal of Political Economy*, 71 (June 1963), 280-83.

Patinkin, D., "Interest", *International Encyclopaedia of the Social Sciences*, Vol. VII N.Y. Macmillan, 1968, 471-485.

8. THE TERM STRUCTURE OF INTEREST RATES

- The mathematics of bond prices
- The expectations theory
- The liquidity preference theory
- The market-segmentation theory
- Operation "Twist"
- Meiselman's error-learning model
- The term-premium hypothesis
- The preferred market habitat hypothesis
- Rational expectations and the term structure
- Australian studies

Alles, L. "The Australian Term Structure as a Predictor of Real Economic Activity," *The Australian Economic Review*, 4th Quarter 1995, 71-85.

Bolder, D. and D. Streliski, "Yield Curve Modelling at the Bank of Canada," Bank of Canada, *Technical Report No. 84*, Feb 1999.

*Handa, J. (2000), ch. 21.

*Lewis, M.K. and P. D. Mizen (2000), Ch. 5.

Mishkin, F.S. and S. G. Eakins (1998), Ch. 6.

Lowe, P. "The Term Structure of Interest Rates, Real Activity and Inflation", RBA, RDP9204 (1992).

Malkiel, B.G. "Term Structure of Interest Rates", in *The New Palgrave*, 628-631.

Modigliani, F. and Sutch, R., "The Term Structure of Interest Rates: A Re-examination of the Evidence", *Journal of Money, Credit and Banking*, 1 (February 1969), 112-120.

Sargent, T.J., "Rational Expectations and the Term Structure of Interest Rates", *Journal of Money, Credit and Banking*, 5 (Feb.1973), 74-97.

Shiller, R.J. and J.H. McCulloch, "The Term Structure of Interest Rates," in Friedman and Hahn (1990).

Tease, W.J., "The Expectations Theory of the Term Structure of Interest Rates in Australia", *Economic Record*, 64 (June 1988), 120-127.

9. RICARDIAN EQUIVALENCE

- Government budget constraint
- Ricardian Equivalence Theorem
- Liquidity constraints
- Critique

*Barro, R.J. "Are Government Bonds Net Wealth?" *Journal of Political Economy*, 82 (Nov/Dec 1974), 1095-1117.

*Barro, R.J. "The Ricardian Approach to Budget Deficits," *Journal of Economic Perspectives*, 3 (Spring 1989), 37-54.

Bernheim, B.D. "Ricardian Equivalence: An Evaluation of Theory and Evidence," *NBER Macroeconomic Annual*, 2, 1987, 263-304.

Bernheim, B.D. "A Neoclassical Perspective on Budget Deficits," *Journal of Economic Perspectives*, 3 (Spring 1989), 55-72.

Buchanan, J.M. "Barro on the Ricardian Equivalence Theorem." *Journal of Political Economy*, 84 (Apr 1976), 337-342.

Feldstein, M. "Government Deficits and Aggregate Demand," *Journal of Monetary Economics*, Feb 1982.

*Handa, J. (2000), Chs. 13, 14, 22.

McCallum, B.T. "Are Bond-financed Deficits Inflationary? A Ricardian Analysis," *Journal of Political Economy*, 89 (Aug. 1984), 123-135.

O'Driscoll, G.P. "The Ricardian Nonequivalence Theorem," *Journal of Political Economy*, 85 (Feb 1977), 207-210.

Romer, D. *Advanced Macroeconomics*, N.Y.: McGraw Hill (1996), Ch. 2.

Scarth, W. M. (1996), Ch.7.

Tobin, J. *Asset Accumulation and Economic Activity*, Oxford: Basil Blackwell, 1980.

10. CREDIT RATIONING

- Definitions of credit rationing
- Adverse selection effects
- Adverse incentive effects
- Enforcement problems
- Collateral, loan size and non-price rationing
- Efficiency and welfare

*Akerlof, G. "The Market for Lemons: Qualitative Uncertainty and the Market Mechanism," *Quarterly Journal of Economics*, 84 (1970), 488-500.

*Baltensberger, E. "Credit Rationing: Issues and Question", *Journal of Money, Credit and Banking* 10 (May 1978), 170-183.

Blinder, A. and J. Stiglitz "Money, Credit Constraints, and Economic Activity," *American Economic Review*, 73 (May 1983), 297-302.

Blundell-Wignall, A. and M. Gizycki, "Credit Supply and Demand and the Australian Economy," Sydney: RBA, RDP 9208 (1992).

*Handa, J. (2000), Ch. 2.

Hodgman, D. "Credit Risk and Credit Rationing," *Quarterly Journal of Economics*, 74 (May 1960), 258-278.

Jaffee, D. and F. Modigliani "A Theory and Test of Credit Rationing," *American Economic Review*, 59 (Dec 1969), 850-872.

Jaffee, D. and T. Russell, "Imperfect Information, Uncertainty, and Credit Rationing," *Quarterly Journal of Economics*, 90 (Nov 1976), 651- 666.

*Lewis, M.K. and P.D. Mizen (2000), Ch.14.

McCallum, J. "Credit Rationing and the Monetary Transmission Mechanism", *American Economic Review*, 81 (Sept 1991),946-951.

Prescott, E.S. "A Primer on Moral-Hazard Models," FRB of Richmond *Economic Quarterly*, 85 (1) (Winter 1999), 47-77.

Stiglitz, J. and A. Weiss, "Credit Rationing in Markets with Imperfect Information", *American Economic Review*, 71 (June 1981), 393-410.

Stiglitz, J. and A. Weiss, "Incentive Effects of Termination: Applications to the Credit and Labor Markets", *American Economic Review*, 73 (Dec 1983), 912-927.

ESSAY TOPICS AND REFERENCES

Research strategy – some of the starter references are given below. You are expected to go beyond these and find more recent publications. An excellent source is recent issues of *Journal of Economic Literature*.

Essay writing technique – the essay should be properly structured. Presentation is important. The essay should contain a synopsis and be divided into sections with appropriate headings. It should start with an introduction and end with a conclusion. Footnotes or endnotes, where appropriate, should be added. References must be done consistently and listed alphabetically by author at the end of the essay.

The essay must be typed on one side of the paper and double spaced. You need to keep a spare copy of the essay just in case the one that you claim that you have submitted is misplaced. You should check with the lecturer after the due date to make sure that your essay has been received.

1. Dollarisation

Some Latin American countries have abandoned their own national currencies and adopted the U.S. dollar as legal tender. Analyse the theoretical issues and policy implications of such a move. Is the role of money served better when a small country adopts the currency of a large country like the United States or the currency of a large currency bloc like the European Monetary Union (EMU)? Should Australia and New Zealand form a common currency area, adopt the U.S. dollar or the euro, or maintain the status quo?

Starter References

Antinolfi, G. and T. Keister, "Dollarization as a Monetary Arrangement for Emerging Market Economies", *F. R. B. of St. Louis Review*, 83, 6 (November/December 2001), 29-39.

Guidotti, P. and C. A. Rodriguez, "Dollarization in Latin America; Gresham's Law in Reverse," *IMF Staff Papers*, 39 (Sept 1992), 518-44.

Ishiyama, Y. "The Theory of Optimum Currency Areas: A Survey," *IMF Staff Papers*, XXII, 2 (July 1975), 344-83.

Mundell, R. "A Theory of Optimum Currency Areas", *American Economic Review*, 51 (September 1961), 657-65.

2. Currency Substitution

Analyse the impact on the demand for money when currency substitution (CS) is practised. Is there any empirical evidence in support of CS? Australians have been able to hold foreign currency accounts after the financial system was deregulated in the 1980s. Is CS a problem for the Reserve Bank of Australia, the Reserve Bank of New Zealand and the Bank of England, when they conduct their monetary policy?

Starter references

Giovannini, A. and B. Turtelboom, "Currency Substitution", in F. van der Ploeg (ed.), *The Handbook of International Macroeconomics*, Oxford: Blackwell, 1994, 390-436.

McDinnon, R.I. "Currency Substitution and Instability in the World Dollar Standard," *American Economic Review*, 72 (June 1982), 320-33.

Rodriguez, C. A. "Money and Credit Under Currency Substitution," *IMF Staff Papers*, 40 (June 1993), 414-426.

Further references may be found by looking up recent issues of *Journal of Economic Literature* and by conducting a catalogue search using Macquarie University Library website.

Macquarie University

Division of Economic and Financial Studies

UNIT: ECON 842 Principles of Monetary Economics

ASSIGNMENT: Essay

DUE DATE: Tuesday 17 October 2006

LENGTH: 3,000 words

CONTRIBUTION TO FINAL ASSESSMENT: 30%

INSTRUCTION: Bring to class

STUDENT NAME: _____
(Surname) (Other Names)

STUDENT NUMBER: _____

ESSAY TOPIC: _____

ESSAY GRADE: _____

MARKER'S COMMENTS:

(Remember to attach and sign the plagiarism declaration)

PLAGIARISM

The University defines plagiarism in its rules: ‘Plagiarism involves using the work of another person and presenting it as one’s own.’ Plagiarism is a serious breach of the University’s rules and carries significant penalties. You must read the University’s practices and procedures on plagiarism. These can be found in the *Handbook of Undergraduate Studies* or on the web at: <http://www.student.mq.edu.au/plagiarism/>

The policies and procedures explain what plagiarism is, how to avoid it, the procedures that will be taken in cases of suspected plagiarism, and the penalties if you are found guilty. Penalties may include a deduction of marks, failure in the unit, and/or referral to the University Discipline Committee.

UNIVERSITY POLICY ON GRADING

The Academic Senate has a set of guidelines on the distribution of grades across the range from fail to high distinction. Your final result will include one of these grades plus a standardised numerical grade (SNG).

On occasion your raw mark for a unit (i.e. the total of your marks for each assessment item) may not be the same as the SNG which you receive. Under the senate guidelines, results may be scaled to ensure that there is a degree of comparability across the university, so that units with the same past performances of their students should receive similar results.

It is important that you realize that the policy does not require that a minimum of students be failed in any unit. In fact it does something like the opposite, in requiring examiners to explain their actions if more than 20% of students fail in a unit.

The process of scaling does not change the order of marks among students. A student who receives a higher raw mark than another will also receive a higher final scaled mark.

For an explanation of the policy see

<http://www.mq.edu.au/senate/MQUonly/Issues/Guidelines2003.doc> or

<http://www.mq.edu.au/senate/MQUonly/Issues/detailguidelines.doc>.

STATEMENT TO BE SIGNED BY STUDENT:

1. I have read the definition of plagiarism that appears above.
2. In my essay I have carefully acknowledged the source of any material which is not my own work.
3. I am aware that the penalties for plagiarism can be very sever.

Name and student number: _____

Signature: _____