



## School of Economics and Finance

## ECON 402 ADVANCED MACROECONOMIC THEORY A

### Trimester One 2008

## **COURSE OUTLINE**

#### **Contact Details**

Dr Kunhong Kim

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#### **Class Times and Room Numbers**

Wednesday 9:30 am - 12:20 pm RWW 126

The final examination will be held at the place and the time, in the period of 9 June – 29 June, to be announced later by the university authority.

#### **Course Objectives**

The objective of the co-requisite courses ECON 402 and 403 is to provide students with a comprehensive knowledge of modern open economy macroeconomic theory. ECON 402 focuses on developments in New Classical Macroeconomics.

ECON 402 also aims to provide students with an ability to formulate and solve macroeconomic problems analytically, and a general appreciation of how policymakers can use the analysis in practice.

#### **Course Content**

ECON 402 commences with a brief perspective on major modern approaches to macroeconomic theory. It then covers the linear rational expectations models. The concept of rational expectations and the characteristics of rational expectations solutions are discussed. Issues that pertain to macroeconomic stabilisation policy under rational expectations, e.g. Lucas critique, policy neutrality, discretionary policy vs. rules, are reviewed. Implications of rational expectations for the behaviour of foreign exchange markets are also discussed. It then introduces models based on representative agent's intertemporal optimisation. It is shown how the issues that pertain to consumption, investment, fiscal policy, and, business cycles are investigated in these models.

Primary emphasis in ECON 402 is on theory, but the policy relevance of theory and issues arising from empirical evidence are also given attention.

#### Readings

Textbook for the course is:

Obstfeld, Maurice and Kenneth Rogoff, *Foundations of International Macroeconomics*, Cambridge, MIT Press, 1996, Pp 804 + xxiii.

In addition to the textbook, following book will be referred to in several sections of the course.

McCallum, Bennett T, *Monetary Economics: Theory and Policy*, New York, Macmillan, 1989, Pp 356 + xii.

As a good example of how policy makers can use the modern developments in macroeconomic analysis, occasionally reference will be made to relevant sections of:

Black, Richard, Vincenzo Cassino, Aaron Drew, Eric Hansen, Benjamin Hunt, David Rose, and Alasdair Scott, *The Forecasting and Policy System: the core model*, Research paper No. 43, RBNZ Wellington, August 1997.

In choosing the following reading material, degree of readability by beginning graduate students has been considered. When a more readable material is found, I have included it in the reading list instead of the original journal article. Titles of original articles will be mentioned in the relevant class.

#### Major Modern Approaches to Macroeconomic Theory (0.5 lecture)

This will provide a brief perspective on the major developments in approaches to macroeconomic theory since early 1970s.

- Mankiw, N Gregory, "A Quick Refresher Course in Macroeconomics", *Journal of Economic Literature*, 28(4), December 1990, pp. 1645-1660.
- McCallum, Bennett T, "New Classical Macroeconomics: A Sympathetic Account", *Scandinavian Journal of Economics*, 91(2), 1989, pp. 223-264.

McCallum, Bennett T, "Macroeconomics After Two Decades of Rational Expectations", Journal of Economic Education, Summer 1994, pp. 219-234.

- *The Economic Record*, June 1989, Symposium on Macroeconomics, pp. 177-189 (contributions by Robert J Gordon, and John B Taylor)
- *American Economic Review*, Papers and Proceedings, May 1997, "Is There a Core of Practical Macroeconomics that We Should All Believe?", pp. 230-246 (contributions by Robert M Solow, John B Taylor, Martin Eichenbaum, Alan S Blinder, and Oliver Blanchard)
- Taylor, John B and Michael Woodford, "Preface", *Handbook of Macroeconomics*, Amsterdam, Elsevier North-Holland, 1999.

# <u>Rational Expectations Hypothesis and Solutions of Rational Expectations Models</u> (1.5 lectures)

Basic properties and solution procedures of linear rational expectations models are explained. Topics covered also include (a) comparison between fundamental and bubble solutions, and (b) brief introduction on how nonlinear rational expectations model can be analysed by loglinearising the necessary conditions for optimisation around the steady state.

- McCallum, Bennett T, *Monetary Economics: Theory and Policy*, New York, Macmillan, 1989, Pp 356 + xii, Chs. 7 & 8.
- McCallum, Bennett T, "On Non-Uniqueness in Rational Expectations Models: An Attempt at Perspective", *Journal of Monetary Economics*, March 1983, pp. 139-168.
- Begg, David, *The Rational Expectations Revolution in Macroeconomics*, London, Philip-Allan, 1982, Chs. 1, 2, 3, & 4(pp. 71-74).
- Blanchard, Oliver J and Stanley Fischer, *Lectures on Macroeconomics*, Cambridge, MIT Press, 1989, Pp 650 + xiii, Ch. 5, pp. 213-225, 257-261.
- Uhlig, Harald, "A Toolkit for Analysing Nonlinear Dynamic Stochastic Models Easily", Ch. 3 in Ramon Marimon and Andrew Scott (ed.), *Computational Methods for the Study of Dynamic Economies*, Oxford University Press, 1999. http://www.wiwi.hu-berlin.de/wpol/html/toolkit.htm(Section 4)

Obstfeld and Rogoff, Ch. 8(pp. 515-523).

#### The Natural Rate Hypothesis and the Stabilisation Policy (1 lecture)

Alternative explanations of inflation-unemployment correlations and their implications for stabilisation policy are discussed. The concept of dynamic inconsistency and its relevance to the policy rules versus discretion debate is also covered.

- McCallum, Bennett T, *Monetary Economics: Theory and Policy*, New York, Macmillan, 1989, Pp 356 + xii, Chs. 9, 10, 11 & 12.
- Walsh, Carl E, *Monetary Theory and Policy*, 2<sup>nd</sup> Edition, Cambridge, MIT Press, 2003, Pp 612 + xviii, Sections 5.3.3, 8.1 & 8.2.
- Woodford, Michael, "The Return of Monetary Rules", Chapter 1, *Interest and Prices*, Princeton, Princeton University Press, 2003, pp. 1-58.

Obstfeld and Rogoff, Ch. 9(pp. 634-647).

Flexible vs. Sticky Price Models of Exchange Rate Determination (1.5 lecture)

Implications of rational expectations for the behaviour of foreign exchange markets are presented and evaluated in the light of empirical evidence. Interesting topic covered here is the relative importance of real shocks and nominal shocks as sources of exchange rate fluctuations. Implications of flexible price (i.e., market-clearing) models and sticky price (i.e., non-market-clearing) models are compared. Empirical support/nonsupport for different approaches is also discussed.

- McCallum, Bennett T, *International Monetary Economics*, New York, Oxford University Press, 1996, Pp 270 + ix, Chs. 8 & 9.
- McCallum, Bennett T, *Monetary Economics: Theory and Policy*, New York, Macmillan, 1989, Pp 356 + xii, Ch. 14(ss. 14.1-14.4).
- Obstfeld and Rogoff, Ch. 8(pp. 526-530, pp. 546-547).
- McCallum, Bennett T, "Unit Roots in Macroeconomic Time Series: Some Critical Issues", Economic *Quarterly*, Federal Reserve Bank of Richmond, Spring 1993, pp. 13-43.
- Blanchard, Oliver J and Danny Quah, "The Dynamic Effects of Aggregate Demand and Supply Disturbances", *American Economic Review*, 79(4), September 1989, pp. 655-673.
- Enders, Walter and Bong-Soo Lee, "Accounting for Real and Nominal Exchange Rate Movements in the Post-Bretton Woods Period", *Journal of International Money and Finance*, Vol. 16, No. 2, 1997, pp. 233-254.
- Stockman, Alan C, "The Equilibrium Approach to Exchange Rates", *Economic Review*, Federal Reserve Bank of Richmond, March-April 1987, pp. 12-30.

Intertemporal Consumption (1.5 lectures)

Models of consumption demand from the point of view of intertemporal optimisation are presented and critically appraised.

- Obstfeld and Rogoff, Chs. 1(pp. 1-5, 28), 2(pp. 60-66, 70-72, 79-85, 96-98), Ch3(pp. 133-136, 146-147).
- Hall, Robert E, "Consumption", Ch. 4 in Robert J Barro (ed.), *Modern Business Cycle Theory*, Cambridge, Harvard University Press, 1989, pp. 153-177.
- Abel, Andrew B, "Consumption and Investment", Ch. 14 in B M Friedman and F H Hahn (eds.), *Handbook of Monetary Economics*, Vol II, Elsevier, 1990, pp. 725-750, 774-778.
- Campbell, J Y and N G Mankiw, "Consumption, Income and Interest Rates: Reinterpreting the Time Series Evidence", in O J Blanchard and S Fischer (eds.), *NBER Macroeconomics Annual 1989*, Cambridge, MIT Press, pp. 185-245.
- Kim, Kunhong, Viv B Hall, and Robert A Buckle, "Consumption-Smoothing in a Small, Cyclically Volatile Open Economy: Evidence from New Zealand", *Journal of International Money and Finance*, 25, December 2006, pp. 1277-1295.

#### Business Fixed Investment (1 lecture)

Various approaches to the explanation of business fixed investment are discussed. Particular attention is given to the q theory, which is an intertemporal optimization approach that explicitly takes account of adjustment costs. Empirical relevance of q theory is also investigated.

Obstfeld and Rogoff, Ch. 2(pp. 99-113).

- Abel, Andrew B, "Consumption and Investment", Ch. 14 in B M Friedman and F H Hahn (eds.), *Handbook of Monetary Economics*, Vol II, Elsevier, 1990, pp. 753-771, 774-778.
- Hayashi, F, "Tobin's Marginal q and Average q: A Neoclassical Interpretation", *Econometrica*, January 1982, pp. 213-224.
- McKibbin, Warwick J and Eric S Siegloff, "A Note on Aggregate Investment in Australia", *The Economic Record*, 64(186), September 1988, pp. 209-215.

Effects of Fiscal Policy (2 lectures)

Effects of fiscal policy are analysed using the intertemporal optimisation framework. Implications of overlapping generations models are compared with those of representative agent models. Models that integrate the overlapping generations and representative agent models are also investigated.

Obstfeld and Rogoff, Ch. 3(pp. 130-136, pp. 141-145, pp. 174-184, pp. 190-191).

- "Symposium on the Budget Deficit", *Journal of Economic Perspectives*, Spring 1989, pp. 17-93, (contributions by Yellen, Barro, Bernheim, Eisner, and Gramlich).
- Bohn, Henning, "Budget Balance through Revenue or Spending Adjustments?", *Journal of Monetary Economics*, 27, 1991, pp. 333-359.

Frenkel, Jacob A and Assaf Razin, *Fiscal Policies and Growth in the World Economy*, 3rd edition, Cambridge, MA: MIT Press, 1996, Ch. 9.

- Wells, Graeme, "Fiscal Policy", Ch. 10 in Brian Silverstone, Alan Bollard, and Ralph Lattimore (eds.), *A Study of Economic Reform: The Case of New Zealand*, Amsterdam, North-Holland, 1996.
- Abel, Andrew B, "Consumption and Investment", Ch. 14 in B M Friedman and F H Hahn (eds.), *Handbook of Monetary Economics*, Vol II, Elsevier, 1990, pp. 750-753.
- Auerbach, Alan J, Jagadeesh Gokhale, and Laurence J Kotlikoff, "Generational Accounting: A Meaningful Way to Evaluate Fiscal Polilcy", *Journal of Economic Perspectives*, Winter 1994, pp. 73-94.

#### **Business Cycle Fluctuations** (3 lectures)

Main ideas and tools of Real Business Cycle (RBC) approach to business cycle fluctuations are explained. In this approach, business cycles are considered to be equilibrium outcomes of optimizing behavior by individual agents. Stochastic general equilibrium models built on the foundations of intertemporally optimizing bahaviour of economic agents are used. Model parameters are typically calibrated rather than estimated. Dynamic simulation techniques are used to analyze the model. Some of the criticisms on early RBC models and the recent developments in the RBC literature are discussed. Impact of RBC approach on recent developments in modeling for practical policy analysis is also discussed.

- Lucas, Robert E, "Understanding Business Cycles", in Lucas, R E, *Studies in Business-Cycle Theory*, Cambridge, MIT Press, 1981, pp. 215-239.
- Kydland, Finn E and Edward C Prescott, "Business Cycles: Real Facts and a Monetary Myth", *Federal Reserve Bank of Minneapolis Quarterly Review*, Spring 1990, pp. 3-18.
- Kim, Kunhong, Robert A Buckle and Viv B Hall, "Key Features of New Zealand Business Cycles", *The Economic Record*, 70(208), March 1994, 56-72.
- McCallum, Bennett T, "Real Business Cycle Models", Ch. 1 in Robert J Barro (ed.), *Modern Business Cycle Theory*, 1989, pp. 16-50.
- Cooley, Thomas F and Edward C Prescott, "Economic Growth and Business Cycles", Ch. 1 in Thomas F Cooley (ed.), *Frontiers of Business Cycle Research*, Princeton University Press, 1995, pp. 1-38.

Obstfeld and Rogoff, Ch. 7(pp. 496-507).

- Uhlig, Harald, "A Toolkit for Analyzing Nonlinear Dynamic Stochastic Models Easily", Ch. 3 in Ramon Marimon and Andrew Scott (ed.), *Computational Methods for the Study of Dynamic Economies*, Oxford University Press, 1999. http://www.wiwi.hu-berlin.de/wpol/html/toolkit.htm
- King, Robert G, "Quantitative Theory and Econometrics", *Federal Reserve Bank of Richmond Economic Quarterly*, 81/3, Summer 1995, pp. 53-105.
- Kim, Kunhong and Adrian R Pagan, "The Econometric Analysis of Calibrated Macroeconomic Models", in M Hashem Pesaran and M R Wickens (eds.), *Handbook of Applied Econometrics: Macroeconomics*, Oxford, Blackwell, 1995, pp. 356-390.
- Horvath, Michael, "Sectoral Shocks and Aggregate Fluctuations", *Journal of Monetary Economics*, 45(1), 2000, pp. 69-106.
- Kim, Kunhong and Young Sik Kim, "How Important is the Intermediate Input Channel in Explaining Sectoral Employment Comovement over the Business Cycle?", *Review of Economic Dynamics*, 9, October 2006, pp. 659-682.

- Carlstrom, Charles T and Timothy S Fuerst, "Agency Costs, Net Worth, and Business Cycle Fluctuations: A Computational General Equilibrium Analysis", *American Economic Review*, 87, December 1997, pp. 893-910.
- Boldrin, Michele, Lawrence J Christiano, and Jonas D M Fisher, "Habit Persistence, Asset Returns and the Business Cycle", *American Economic Review*, 91(1), March 2001, pp. 149-166.
- Blanchard, Oliver J and Danny Quah, "The Dynamic Effects of Aggregate Demand and Supply Disturbances", *American Economic Review*, 79(4), September 1989, pp. 655-673.
- Buckle, Robert A, Kunhong Kim, Heather Kirkham, Nathan McLellan, and Jared Sharma, "A Structural VAR Business Cycle Model of a Volatile Small Open Economy", *Economic Modelling*, 24, November 2007, pp. 990-1017.

#### **Expected Workload**

ECON 402 is a 15-point course, and on the basis of VUW having designated one point = 10 hours work, expected work load would total 150 hours. If that workload were spread over 12 weeks, hours expected would average around 12.5 hours per week. This would involve attending classes, plus reading, studying and completing assignments. The 12.5 hours would of course vary for individual students, depending on the student's previous knowledge and understanding, and the final grade at Honours level to which the student aspires.

#### **Assessment Requirements**

Assignments	30%
Final Examination	70%

Series of assignments are designed to have students learn some tools for solving macroeconomic problems analytically. Assignments will be handed out throughout the course. There will be 4 assignments in total. In the final examination, students will be asked to answer a series of questions by writing short essays. It is designed to assess whether a student has good understanding on the modern developments in macroeconomics literature and to assess her/his ability to think critically.

#### Penalties

Work submitted late will not be marked.

#### **Communication of Additional Information**

Additional information or information on changes will be conveyed to students through emails and Blackboard.

#### **Faculty of Commerce and Administration Offices**

#### Railway West Wing (RWW) - FCA Student and Academic Services Office

The Faculty's Student and Academic Services Office is located on the ground and first floors of the Railway West Wing. The ground floor counter is the first point of contact for general enquiries and FCA forms. Student Administration Advisers are available to discuss course status and give further advice about FCA qualifications. To check for opening hours call the Student and Academic Services Office on (04) 463 5376.

#### Easterfield (EA) - FCA/Education/Law Kelburn Office

The Kelburn Campus Office for the Faculties of Commerce and Administration, Education and Law is situated in the Easterfield Building on the ground floor (EA005). This counter is the first point of contact for :

- Duty tutors for student contact and advice.
- Information concerning administrative and academic matters.
- Forms for FCA Student and Academic Services (e.g. application for academic transcripts, requests for degree audit, COP requests).
- Examinations-related information during the examination period.

To check for opening hours call the Student and Academic Services Office on (04) 463 5376.

#### Notice of Turnitin Use

Student work provided for assessment in this course may be checked for academic integrity by the electronic search engine <http://www.turnitin.com>. Turnitin is an on-line plagiarism prevention tool which identifies material that may have been copied from other sources including the Internet, books, journals, periodicals or the work of other students. Turnitin is used to assist academic staff in detecting misreferencing, misquotation, and the inclusion of unattributed material, which may be forms of cheating or plagiarism. *At the discretion of the School, handwritten work may be copy typed by the School and subject to checking by Turnitin.* You are strongly advised to check with your tutor or the course coordinator if you are uncertain about how to use and cite material from other sources. Turnitin will retain a copy of submitted materials on behalf of the University for detection of future plagiarism, but access to the full text of submissions will not be made available to any other party.

#### **General University Policies and Statutes**

Students should familiarise themselves with the University's policies and statutes, particularly the Assessment Statute, the Personal Courses of Study Statute, the Statute on Student Conduct and any statutes relating to the particular qualifications being studied; see the Victoria University Calendar or go to <a href="https://www.victoria.ac.nz/home/about/policy/students.aspx">www.victoria.ac.nz/home/about/policy/students.aspx</a>

For information on the following topics, go to the Faculty's website <u>www.victoria.ac.nz/fca</u> under Important Information for Students:

- Academic Grievances
- Student and Staff Conduct
- Meeting the Needs of Students with Impairments
- Student Support

#### Academic Integrity and Plagiarism

Academic integrity is about honesty – put simply it means *no cheating*. All members of the University community are responsible for upholding academic integrity, which means staff and students are expected to behave honestly, fairly and with respect for others at all times.

Plagiarism is a form of cheating which undermines academic integrity. The University defines plagiarism as follows:

The presentation of the work of another person or other persons as if it were one's own, whether intended or not. This includes published or unpublished work, material on the Internet and the work of other students or staff.

It is still plagiarism even if you re-structure the material or present it in your own style or words.

Note: It is however, perfectly acceptable to include the work of others as long as that is acknowledged by appropriate referencing.

Plagiarism is prohibited at Victoria and is not worth the risk. Any enrolled student found guilty of plagiarism will be subject to disciplinary procedures under the Statute on Student Conduct and may be penalized severely. Consequences of being found guilty of plagiarism can include:

- an oral or written warning
- cancellation of your mark for an assessment or a fail grade for the course
- suspension from the course or the University.

Find out more about plagiarism, and how to avoid it, on the University's website: www.victoria.ac.nz/home/studying/plagiarism.html

#### Manaaki Pihipihinga Programme

Manaaki Pihipihinga is an academic mentoring programme for undergraduate Māori and Pacific students in the Faculties of Commerce and Administration, and Humanities and Social Sciences. Sessions are held at the Kelburn and Pipitea Campuses in the Mentoring Rooms, 14 Kelburn Parade (back courtyard), Room 109D, and Room 210, Level 2, Railway West Wing. There is also a Pacific Support Coordinator who assists Pacific students by linking them to the services and support they need while studying at Victoria. Another feature of the programme is a support network for Postgraduate students with links to Postgraduate workshops and activities around Campus.

For further information, or to register with the programme, email <u>manaaki-pihipihinga-programme@vuw.ac.nz</u> or phone (04) 463 6015. To contact the Pacific Support Coordinator, email <u>pacific-support-coord@vuw.ac.nz</u> or phone (04) 463 5842.