Syllabus for EC4010 Module 2 (Macroeconomics)

About this Course

This module covers a number of topics in macroeconomic theory. We will start by focusing on various theories of the determinants of long-run economic growth. The rest of the course will then focus on a set of rational expectations models, first looking at how agents expectations of the future affect stock prices, consumption, and investment, and then considering some topics related to monetary policy.

Although some of these topics will be familiar, the overall approach taken in this class will perhaps be more formal than you have seen. In all cases, we will use mathematics to derive solutions to models and to characterise their properties, and in some cases, this will involve introducing methods that you may not have seen before. While this approach to macroeconomics may seem a little austere to some of you, it has some great advantages. For instance, it allows one to precise about the implications of the various underlying assumptions. Also, by providing explicit solutions for the determinants of various macroeconomic variables, this approach combines well with the econometric approach to testing economic theories. For those of you who intend to study more economics after this course, we hope to give you a flavour of the modern approach to macroeconomics, and perhaps teach you a few tools that may prove useful in the future.

Organisational Details

There will be a written assignment that will count for 10% of your final grade. This is to be handed in by the end of the lecture on April 25. There will also be occasional tutorial classes on Tuesdays.

There is no set text. I will distribute lecture notes as we go along, and together with readings from journal articles, these will form the core material for the course. The notes will be available on a class website. Reading all of the articles on the syllabus will help, but I don't anticipate that all of you to do so: I will signal as we go along which readings are most important. The Charles Jones book covers most of the material on economic growth but is best seen as a useful backup text. Another useful book that covers a number of the topics covered in the class is David Romer's *Advanced Macroeconomics*.

About Me

Since 2002, I have worked as a researcher in macroeconomics at the Central Bank and Financial Services Authority of Ireland (i.e. the Central Bank). Previously, I worked as a staff economist at the Federal Reserve Board in Washington DC, obtained a PhD in economics from the Massachusetts Institute of Technology, and (a long time ago) a degree in economics and mathematics from TCD. I can be contacted by telephone at 434-4392 and by email at karl.whelan@centralbank.ie.

1. Economic Growth

What factors determine GDP in the long run? What explains patterns of economic growth across countries? What can policy-makers do to influence the rate of growth in the medium and long-run?

Readings:

- Brad DeLong. *Macroeconomics*, McGraw-Hill, Chapter 4. Can be downloaded at `econ161.berkeley.edu/macro_online/ms/ch4/del28487_ch04.pdf`
- Charles Jones. *Introduction to Economic Growth*, Second Edition, 2002.
- Sergio Rebelo. "Long-Run Policy Analysis and Long-Run Growth," *Journal of Political Economy*, June 1991 (JSTOR).
- Paul Romer. "Endogenous Technological Change, " *Journal of Political Economy*, October 1990 (JSTOR).
- Robert Hall and Charles Jones. "Why Do Some Countries Produce So Much More Output Per Worker than Others?" *Quarterly Journal of Economics*, February 1999 (JSTOR).

2. Rational Expectations, Stock Prices, Consumption, and Investment

Most of the important variables in macroeconomics—stock prices, household spending, business investment—depend on expectations of future events. How can we formulate models that describe this rigorously? How can we test such models? And how well do they do in describing the data?

Readings:

- John Campbell and Robert Shiller. "The Dividend-Price Ratio and Expectations of Future Dividends and Discount Factors," *Review of Financial Studies*, Autumn 1988 (JSTOR).
- John Campbell and Robert Shiller. "Valuation Ratios and the Long-Run Stock Market Outlook: An Update," NBER Working Paper No. 8221, April 2001. (Available at `www.nber.org/papers`)
- Angus Deaton. *Understanding Consumption*, Chapter 3, 1992, Oxford: OUP.
- Stacey Tevlin and Karl Whelan. "Explaining the Investment Boom of the 1990s," *Journal of Money, Credit and Banking*, February 2003. Working paper version available at `www.federalreserve.gov/pubs/feds/2000/200011/200011abs.html`

3. Output and Inflation With Sticky Prices

For monetary policy to affect output, some type of price rigidity must exist. How can we rigorously formulate models that allow for this price stickiness? How does monetary policy work in such models? And how well do these models fit the data?

Readings:

- Jordi Galí and Mark Gertler. "Inflation Dynamics: A Structural Econometric Analysis," *Journal of Monetary Economics*, 1999. Available at `www.nyu.edu/econ/user/gertlerm/jme99.pdf`
- Laurence Ball. "Credible Disinflation with Staggered Price-Setting," *American Economic Review*, March 1994 (JSTOR).
- Jeremy Rudd and Karl Whelan, 2002. "Does the Labor Share of Income Drive Inflation?" Working paper version available at `www.federalreserve.gov/pubs/feds/2002/200230/200230abs.html`
- Jeremy Rudd and Karl Whelan, 2003. "Inflation Targets, Credibility, and Persistence in a Simple Sticky-Price Framework." Working paper version available at `www.federalreserve.gov/pubs/feds/2003/200343/200343abs.html`