

## Syllabus 2018-2019

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### **COURSE DESCRIPTION**

Macroeconomics-2 is a one-semester course delivered in English for the third-year students at ICEF. The course examines the most compelling and influential theories of aggregate output determination, inflation and unemployment in an open mixed economy. It develops students' aggregate thinking by providing a consistent microeconomics-based framework for understanding the main macroeconomic facts and events. The course enables students to employ the proper models to solve macroeconomic problems and justify relevant policies both in the short-run and in the long-run.

### **PREREQUISITES**

Students are required to have good command in Introductory Economics (EC1002) and calculus taught in the first and second years of studies. They are also expected to be familiar with constrained optimisation and basic game theory principles. The course itself provides a basis (and so serves as a prerequisite) for such courses as Monetary Economics, International Economics, Development Economics.

### **COURSE OBJECTIVES**

The purpose of the course is to develop the model-based way of 'aggregate thinking' and make students ready to apply relevant macroeconomic tools in their further studies. Specifically, the course aims at:

- describing the main factors of aggregate demand fluctuations both in a closed and an open mixed economy;
- explaining the determinants of unemployment and inflation in the short run and in the long run;
- discussing how macroeconomic policy might influence business cycles or long-run growth;
- enabling students to participate in debates on macroeconomic and political matters.

### **INTENDED LEARNING OUTCOMES**

Having completed the essential reading and learning activities, successful students are expected to be able to:

- define the main macroeconomic concepts such that GDP and its components, inflation, unemployment, balance of payments, monetary, fiscal, and exchange rate policy;

- describe the models and methods used in the macroeconomic analysis of the short-run fluctuations and the long-run dynamics;
- apply proper analytical models to solve macroeconomic problems and assess the potential and limitations of these models and other methods used in macroeconomic analysis;
- explain and justify positive macroeconomic policy propositions both in written and oral communications and illustrate the relevance of the macroeconomic models through applying good group working practices.

## **METHODS OF INSTRUCTION**

The following methods and forms of study and control are used in the course:

- **Lectures (4 hours a week).** Attendance at lectures is strongly recommended. Lectures offer a verbal presentation of the essential material to be mastered. More importantly, they indicate the relative importance of sub-topics and offer approaches to explore concepts that reading of the notes or textbooks sometimes leaves obscure. Those who cannot attend a lecture should endeavour to discuss its content with a fellow student who did attend. If lecture material is unclear, it is best to consult the tutor, preferably during tutorials or the tutor's office hours. Due to the large size of the class extensive discussions are not encouraged during lectures. Still, the interactivity during lectures is organised via an online learning platform which is also used for online quizzes.
- **Classes (2 hours a week).** Class teachers are highly encouraged to implement the flipped classroom approach which requires a great deal of preparatory work from students. Students are strongly encouraged to carefully prepare written answers to home assignments in advance of attending tutorials, then ask teachers about tricky questions in their home assignments, and attempt to solve problem sets in class that are known to them well in advance. Group work presentations with obligatory Q&A session take place in class ensuring peer-learning with some elements of peer-assessment.
- **Teachers' consultations.** Unresolved questions on the lecture material can be addressed with tutors on appointment during their consultation times (office hours).
- **Self-study.** Before consulting a tutor, however, students are expected to make a serious attempt to solve the problem. Since learning for understanding can only be done by the student lecturers and tutors can do no more than offer advice as to how to go about it. Without prior effort to master a topic on the part of the student, consultation is a wasteful repeat of the lecture experience.
- **Group work.** Each student is expected to participate in a joint group work on a specific practically relevant topic. The topic is to be chosen by students themselves! The basic idea of this type of learning activity is to build a bridge between the theory and real-life issues and demonstrate relevance and applicability of the analytical approach studied in the course.
- **Written home assignments (problem sets).** A set of home assignments (problem sets) is distributed each week (about 10 in total). Students are strongly encouraged to have completed problem sets. Writing answers to questions before they are discussed in class is the best way to master the course material.
- **Use of online resources.** One can easily find plenty of useful materials available online for free by simply typing "interactive macroeconomics" in the search browser. To avoid a waste of time students are recommended to begin with the most suitable links listed in the Learning aids section below.

## **ASSESSMENT**

The general provisions for the summative assessment are governed by the ‘Ongoing and Interim Assessment Arrangements at HSE International College of Economics and Finance (ICEF)’.

### **Formative assessments**

- Q&A - Questions and Answers
- Class participation

### **Summative assessments**

- Quizzes (weekly)
- Home Assignments (weekly)
- Mid-term test (end of March)
- Group work (April)
- Final exam (May)

Students’ ILOs are assessed at two broad levels:

- **Information-based knowledge** is assessed through a set of short questions that have a ‘True/False? Briefly explain your answer’ format. Students are expected not only to provide an answer but also briefly justify it on the basis of the relevant theory. Full formal derivation of the relevant model is not expected, and often a graphic or descriptive (non-analytical) answer is sufficient.
- **Skill-based knowledge** reflects the ability to adequately use the recognised models and ability to apply the relevant theories to address actual macroeconomic issues.

Soft skills (such that presentation, communication, organisation, task management skills) are assessed through a set of formal criteria specified in the section ‘Group work assessment’.

Students’ ability to participate in the debates on macroeconomic issues communicate their ideas to professional audience is assessed via a group work.

### **Group work assessment**

The **topic** for presentation has to tackle an interesting and up to date macroeconomic issue discussed in respected general interest newspapers and magazines, such as The Economist, Wall Street Journal, Financial Times, Moscow Times, Ведомости, Коммерсантъ, etc.

The **time limit** for in class presentation is 10 min. There will be a single Presenter that is assigned by the instructor at his/her discretion so each sub-group member should be ready to take charge.

The groups are normally assigned and moderated by the lecturer on the basis of a *stratified randomization* principle to level the playing field. Specifically, students with relatively good, moderate and bad mid-term exam results are mixed in the sub-groups with students having comparable average grades.

There are three types of activity that contribute to the success of the group work and are directly assessed:

- Presentation (oral communication)
- Formal analysis (graphs, formulas, calculations, etc.)
- Discussion (interaction with peers, Q&A session)

Presentation skills (*PS*) can be demonstrated by a randomly assigned Presenter who is required to show the following individual competences:

1. Ability to attract attention, i.e. connectedness to the audience;
2. Clarity and suggestiveness, i.e. logic and explicitness of the presentation;

3. Proper time management (about 10 slides, exactly 10 min).

Analytical skills are primarily assessed on the basis of the Group Portfolio that comprises of three documents that can be accessed by the class teacher and members of the three other sub-groups in class:

- The original article (in print)
- 7-10 PPT slides in the template format (flash card)
- Analytical description of the problem containing:
  - Justification of assumptions
  - Detailed modelling framework
  - Derivations of proofs
  - Properly labeled graphs
  - Conclusive comments

Group Portfolio has to be sent in MS Word or pdf format to the class teacher 24 hours before the presentation. The quality of formal analysis (analytical skills) is assessed on the basis of the following equally important criteria:

4. Relevance of the article, i.e. the ability to find an interesting and up to date case on macroeconomic issues in the newspaper/journal, briefly summarize the basic facts and conceptualize the main point/idea/argument/problem/issue using the GEM approach:
  - G-general language (use by ordinary people in everyday conversations)
  - E-economics (definitions, concepts, laws and regularities)
  - M-mathematics (graphs, algebra, econometric regressions)
5. Selection of an appropriate theoretical approach
6. Identification of crucial assumptions that make this theory applicable for the case analysis
7. Evaluation of the trade-off between unnecessary complication and oversimplification of the story
8. Application of graphical and/or algebraic analysis where appropriate; extend and modify the text-book version of the model
9. Formulation of propositions and/or conclusions in the professional language of macroeconomics
10. Ability to confront the author's statements with the theoretical predictions of the designed model

Portfolio grade (*PG*) contributes 70% to the Group grade (*GG*). The remaining 30% are awarded for the discussion skills (*QA*) – the ability to pose and answer smart questions during 5 min of Q&A session after the presentation. Each group is obliged to prepare 1 'collective' question to their peers (3 questions in total) and be sure to answer 3 questions from the class.

**Intermediate control.** Students take the mid-term test that is shaped by the University of London (UL) examination format. The mid-term test is set in late March or early April by the local teachers, and is graded in accordance with the UL examination rules.

**Final control.** Students take a three-hour closed book unseen written examination at the end of the course which is designed and checked by the UL or local examiners.

**Resits.** In case students fail a course at the first attempt they will be given a resit in September to enable them to pass the course and gain the credits. Resit marks are capped at the 'pass' threshold. In cases where there is accepted exceptional circumstances the exam board may give a sit. Marks for sits are not capped.

## GRADE DETERMINATION

All types of assessment (quizzes, home assignments, midterm test, group portfolio and exam) are graded on the 100-point scale.

The final grade is determined as a weighted average of the above mentioned assessment results according to the following formula:

$$G_{final} = 0.1 \times Quizz + 0.1 \times HA + 0.25 \times Mid + 0.1 \times IG + 0.45 \times Exam$$

where

- *Quizz* is the average grade for quizzes,
- *HA* is the average grade for home assignments,
- *Mid* is the grade for the mid-term test,
- *IG* is the individual grade for the group work,
- *Exam* is the grade for final exam (UL or internal)

**Individual grade for the group work (*IG*)** takes into account individual student's contribution to the group performance. The Group grade (*GG*) is determined according to the following rule:

$$GG = [QA \cdot 0.3 + PG \cdot 0.7]$$

where

- *QA* is the grade for discussion skills
- *PG* is Portfolio Grade for analytical skills (criteria 4 to 10)

Each student will get an Individual Grade (*IG*) depending on the ex-ante determined relative contributions (weights) to the group result. The individual weights  $\alpha_i$  are self- and peer assessed by the sub-group members. This information is collected via anonymous median voting in Socrative before the presentation. The maximum individual grade can not exceed 110% of the Group Grade:

$$IG = \min\{1.1 \times GG ; \alpha_i \times GG \cdot N\}$$

where  $N$  = Number of the sub-group team-mates attended the class at the presentation day.

Each presenter is assessed individually by the class teacher using the following criteria:

$$IG_p = [PS \cdot 0.3 + \alpha_p \times GG \cdot 0.7]$$

where

- $\alpha_p$  is the self- and peer assessed weight of the Presenter's contribution to the team result, and
- *PS* is the presenter's grade for presentation skills.

## GRADE CONVERSION INTO 10-POINT AND 5-POINT SCALES

The following grading scale is used to convert the grades from the 100-point scale to the 10-point scale and then to the 5-point scale:

100-point scale	10-point scale	5-point scale
0	0	fail
0.01-10.00	1	
10.01-20.00	2	
20.01-30.00	3	

30.01-37.00	4	satisfactory
37.01-45.00	5	
45.01-53.00	6	good
53.01-60.00	7	
60.01-67.00	8	excellent
67.01-75.00	9	
75.01-100 .	10	

In case of a failing final grade on the 100-point scale (0 – 30 points), a passing final grade of 4 on the 10-point scale is given, if the student’s final exam grade exceeds 50 points on the 100-point scale AND each of the grades for continuous and interim assessment exceeds 5 points on the 100-point scale, i.e.  $Quizz \geq 5$ ;  $HA \geq 5$ ;  $Mid \geq 5$ ;  $IG \geq 5$ .

### ESSENTIAL READING

1. Polito V. and Brendon C. *Macroeconomics*. Subject Guide EC2065. University of London, 2016.[SG]

### MAIN READING

2. Blanchard O., *Macroeconomics*. Seventh edition. Boston: Pearson. 2017. [B]
3. Dornbusch R., Fischer S. and Startz R., *Macroeconomics*. 11<sup>th</sup> edition. New York: McGraw-Hill, 2011, 2011. [DFS]
4. Mankiw, N.G., *Macroeconomics*, Eighth edition. Worth Publishers. 2012. [M]

### SUPPLEMENTARY READING

- Alesina, Alberto ‘The political economy of the budget surplus in the United States’, *Journal of Economic Perspectives* 14(3) 2000, pp.3–19.
- Ball, Laurence and N.G. Mankiw ‘The NAIRU in theory and practice’, *Journal of Economic Perspectives* 16(4) 2002, pp.115–36.
- Barro, Robert ‘Are government bonds net wealth?’, *Journal of Political Economy* 82(6) 1974, pp.1095–17.
- Barsky, Robert, B., and L. Kilian ‘Oil and the macroeconomy since the 1970s’, *Journal of Economic Perspectives* 18(4) 2004, pp.115–34.
- Baumol, William J. ‘Productivity growth, convergence, and welfare: What the long-run data show’, *American Economic Review* 76(5) 1986, pp.1072–85.
- Baumol, William J. ‘The transactions demand for cash: an inventory theoretic approach’, *Quarterly Journal of Economics* 66 1952, pp.545–56.
- Bernanke, Ben S. and Frederic S. Mishkin ‘Inflation targeting: a new framework for monetary policy?’, *Journal of Economic Perspectives* 11(2) 1997, pp.97–116.
- Besley, Timothy, and R. Burgess ‘Halving global poverty’, *Journal of Economic Perspectives* 17(3) 2003, pp.3–22.
- Blanchard, O. ‘European unemployment: the evolution of facts and ideas’, *NBER working paper*, No. 11750, 2005.
- Bosworth, Barry, and S. M. Collins ‘Accounting for growth: comparing China and India’, *Journal of Economic Perspectives* 22(1) 2008, pp.45–66.
- Calvo, Guillermo A., and F.S. Mishkin. ‘The mirage of exchange rate regimes for emerging market countries’, *Journal of Economic Perspectives* 17(4) 2003, pp.99–118.

- Chari, V.V. and Patrick J. Kehoe 'Modern macroeconomics in practice: how theory is shaping policy', *Journal of Economic Perspectives* 20(4) 2006, pp.3–28.
- Crowe, Christopher and Ellen E. Meade 'The evolution of central bank governance around the world', *Journal of Economic Perspectives* 21(4) 2007, pp.69–90.
- Davis, Steven J., R.J. Faberman and J. Haltiwanger 'The flow approach to labor markets: new data sources and micro-macro links', *Journal of Economic Perspectives* 20(3) 2006, pp.3–26.
- Easterlin, Richard A. 'The worldwide standard of living since 1800', *Journal of Economic Perspectives* 14(1) 2000, pp.7–26.
- Fischer, Stanley, R. Sahay and C.A. Végh 'Modern hyper- and high inflations', *Journal of Economic Literature* 40(3) 2002, pp.837–80.
- Friedman, Milton *A theory of the consumption function*. (Princeton, NJ: Princeton University Press, 1957).
- Friedman, Milton 'The role of monetary policy', *American Economic Review* 58(1) 1968 pp.1–17. Also in Estrin, S. and A. Marin, Chapter 10.
- Hall, Robert, E. and Dale W. Jorgenson 'Tax policy and investment behaviour', *American Economic Review* 57(3)1967, pp.391–414.
- Hall, Robert, E. 'Stochastic implications of the life cycle-permanent income hypothesis: theory and evidence', *Journal of Political Economy* 86(6) 1978, pp.971–87.
- Hoshi, Takeo and A. K. Kashyap 'Japan's financial crisis and economic Stagnation', *Journal of Economic Perspectives* 18(1) 2004, pp.3–26.
- Hutchison, Michael 'Japan's recession: Is the liquidity trap back?' *Federal Reserve Bank of San Francisco. FRBSF Economic Letter/Pacific Basin Notes*. 2000–19, 16 June 2000 (available at [www.frbsf.org/econsrch/wklyltr/2000/el2000-19.html](http://www.frbsf.org/econsrch/wklyltr/2000/el2000-19.html)).
- Jones, Charles I. *Introduction to economic growth*. (Norton, 2002) second edition [ISBN 9780393977455] Chapters 1, 2.1, 3 and 4.
- Jones, Charles I. 'On the evolution of the world income distribution', *Journal of Economic Perspectives* 11(3) 1997, pp.19–36.
- Keynes, John, M. 1936 'The state of *long term expectations*', Chapter 12 of *The general theory of employment, interest and money*. Also in Estrin, S. And A. Marin, Chapter 15.
- Lucas, Robert 'Understanding business cycles', in K. Brunner and A. Meltzer (eds) *Stabilization of the domestic international economy*, 5, pp.7–29. Also in Estrin, S. and A. Marin *Essential reading in economics*. (Basingstoke: Macmillan Press, 1995) first edition [ISBN 9780312125110] Chapter 16.
- Ludvigson, Sydney C. 'Consumer confidence and consumer spending', *Journal of Economic Perspectives* 18(2) 2004, pp.29–50.
- Mann, Catherine L. 'Perspectives on the US current account deficit and sustainability', *Journal of Economic Perspectives* 16(3) 2002, pp.131–52.
- Modigliani, Franco 'Life cycle, individual thrift, and the wealth of nations', *American Economic Review* 76(3)1986, pp.297–313.
- Modigliani, Franco 'The monetarist controversy, or, should we forsake stabilisation policies?', *American Economic Review* 67(2) 1977, pp.1–17. Also in Estrin, S. and A. Marin, Chapter 20.
- Pentecost, E. *Macroeconomics: an open economy approach*. (Basingstoke: Palgrave Macmillan, 2000) Chapters 6, 7 and 11.
- Romer, David 'Keynesian macroeconomics without the LM curve', *Journal of Economic Perspectives* 14(2) 2000, pp.149–69.
- Romer, Paul M. 'The origins of endogenous growth', *Journal of Economic Perspectives* 8(1) 1994, pp.3–22.
- Sargent, Thomas J. and N. Wallace 'Rational expectations and the theory of economic policy', *Journal of Monetary Economics* 2(2) 1976, pp.169–83. Also in Estrin, S. and A. Marin, Chapter 19.
- Svensson, Lars E. O. 'Escaping from a liquidity trap and deflation: The foolproof way and others', *Journal of Economic Perspectives* 17(4) 2003, pp.145–66.
- Södersten, Bo. and G. Reed *International economics*. (Basingstoke: Macmillan, 1994) Chapters 28.3 and 29.6.
- Taylor, John B. 'Reassessing discretionary fiscal policy', *Journal of Economic Perspectives* 14(3) 2000, pp.21–36.
- Tobin, James. 'Inflation and unemployment', *American Economic Review* 62(1) 1972, pp.1–18. Also in Estrin, S. and A. Marin, Chapter 11.

Tobin, James 'Liquidity preference as behavior towards risk', *Review of Economic Studies* 25 1958, pp.65–86.

Zarnowitz, Victor 'Theory and history behind business cycles: Are the 1990s the onset of a golden age?' *Journal of Economic Perspectives* 13(2) 1999, pp.69–90.

## LEARNING AIDS

The following resources are available for students to support their learning:

- Lectures slides,
- Essential reading,
- Examiners reports on past exam papers,
- Further reading,
- VLE environment resources.

Lecture slides, lecture notes, marking schemes to previous mock exams as well as home assignments and class plans are regularly uploaded to the course page in the ICEF Information System <http://icef-info.hse.ru/>.

## Online study resources

- In addition to the subject guide and the Essential reading, it is crucial that you take advantage of the study internet resources that are available online for this course, including the VLE and the Online Library. You can access the VLE, the Online Library and your University of London email account via the Student Portal at: <http://my.londoninternational.ac.uk>
- Current year materials are regularly posted at the course web-page <http://icef-info.hse.ru/>
- Companion Website for Blanchard's *Macroeconomics*, the basic textbook for the course, offers interactive Multiple Choice Questions, Essay Topics selected for each chapter of the textbook (27 in total) <http://myphlip.pearsoncmg.com/cw/mpbookhome.cfm?vbookid=388>
- This site can be used to graphically analyse and explore micro- and macroeconomic theories and concepts. The lessons are interactive and each topic presents subsidiary issues that may be analysed by the student and results are illustrated with a click. Simple Keynesian Cross Model, Consumption and Savings Functions, Goods Market Equilibrium, Supply and Demand for Money, as well as Simultaneous Equilibrium in IS-LM Model are presented on <http://nova.umuc.edu/~black/pageg.html>
- Wolfram demonstrations project, interactive diagrams (Keynesian cross, IS-LM, Solow Model) <http://demonstrations.wolfram.com/TheParadoxOfThriftInASimpleStockFlowConsistentModel/>
- The following tutorial is primarily intended to serve as a pathfinder through the tools part of Macroeconomics. Emphasising graphs and animations, it explains the essentials of macroeconomics, shows how the different building blocks are related, and offers interactive numerical exercises. <http://www.fgn.unisg.ch/eurmacro/macroeconomics.html>
- Videos: There are recorded academic introductions to the subject, interviews and debates and, for some courses, audio-visual tutorials and conclusions.(via VLE)
- Recorded lectures: For some courses, where appropriate, the sessions from previous years' Study Weekends have been recorded and made available. (via VLE)

## COURSE OUTLINE

### **1. Aggregate demand in a closed economy: the IS-LM model**

Goods market and IS curve derivation. Assets market and LM curve derivation. Equilibrium in IS-LM model. Effectiveness of fiscal and monetary policies.

**(DFS Ch.9-11, 19; B Ch.3-5; M Ch.10-11)**

#### **Further reading**

Romer D., Keynesian Economics without the LM curve, *Journal of Economic Perspectives* 14, pp.149-169, 2000.

Hoshi T., A.K.Kashyap, Japan's Financial Crisis and Economic Stagnation, *Journal of Economic Perspectives*, 18 (1), 2004, pp. 3-26.

Ludvigson S.C., Consumer Confidence and Consumer Spending, *Journal of Economic Perspectives*, 18 (2), 2004, pp.29-50.

### **2. Aggregate demand in an open economy: the IS-LM-BP model**

The IS curve in an open economy. The foreign exchange market and exchange rate terminology. The BP curve and capital mobility. Macroeconomic policy under imperfect capital mobility (comparison with perfect capital mobility and capital control). Exchange rate crisis.

**(DFS Ch.12, 20; B Ch.18-21; M Ch.5, 12)**

#### **Further reading**

Calvo G., F.S.Mishkin, The mirage of exchange rate regimes for emerging market countries, *Journal of Economic Perspectives* 17(4), pp.99-118, 2003.

Mann C.L., Perspectives on the US current account deficit and sustainability, *Journal of Economic Perspectives* 16(3), pp.131-152, 2002.

### **3. Unemployment and the AD-AS model**

Labour market: key concepts (labour force, unemployment rate, participation rate).

The types and causes of unemployment: frictional, structural and classical (or real wage) unemployment. Hysteresis.

The aggregate supply (AS) curve. The long run aggregate supply curve and short run AS curve.

Explanations of upward sloping short run aggregate supply curve. Sticky wages (Keynesian) model. Classical worker misperception model, new Keynesian sticky price model, new classical imperfect information model of short run AS. Expectations and short run AS.

The aggregate demand curve. Explanations of the slope.

Equilibrium in aggregate supply- aggregate demand model. Monetary and fiscal policy in the long run and in the short run. Supply shocks.

**(DFS Ch.5,7, 10.4; B Ch.6-7, 13; M Ch.6, 9, 11(Appendix), 13.1)**

#### **Further reading**

Ball L., N.G.Mankiw, The NAIRU in theory and practice, *Journal of Economic Perspectives*, 16(4) pp.115-136, 2002.

Blanchard O., European unemployment: The evolution of facts and ideas, *NBER Working Paper*, N11750, 2005.

Davis S.J., R.J.Faberman, J. Haltiwanger, The flow approach to labour markets: new data sources and micro-macro links, *Journal of Economic Perspectives* 20 (3), pp.3-26, 2006.

Yellen J., Efficiency wage models of unemployment, *American Economic Review*, 74, May, 1984.

Lucas R., Understanding business cycles, in Estrin S., A.Marin, *Essential Readings in Economics*, Chapter 16, MacMillan Press 1995.

Zarnowitz V., Theory and history behind business cycle: Are the 1990s the onset of the golden age? *Journal of Economic Perspectives*, 13(2), pp.69-90, 1999.

#### **4. Inflation and the Phillips curve**

Phillips curve. AD-AS model in the long run. Inflation in the long run.

Inflation in the short run. The links between the Phillips curve, Okun's law, and the SRAS relation. The costs and benefits of inflation. The quantity theory of money, and its long-run implications for monetary policy. The cost of disinflation policy. Rational expectations and Lucas critique.

**(DFS Ch.6-7, 11.1-11.2, 19.3; B Ch. 8-9, 14.3-14.4, 22, 25.1; M Ch.4, 13.2)**

#### **Further reading**

Barsky R.B., L.Kilian, Oil and macroeconomy since the 1970s, *Journal of Economic Perspectives*, 18 (4), pp.115-134, 2004.

Svensson L.E., Escaping from a liquidity trap and deflation: The foolproof way and others, *Journal of Economic Perspectives*, 17 (4), pp.145-166, 2003.

Tobin J., Inflation and unemployment, *American Economic Review*, 62 (1), pp.1-18, 1972.

#### **5. Economic Growth: the Solow model and endogenous theories**

Factors of economic growth, Solow residual.

Stylized facts of economic growth.

Assumptions of the Solow model. Derivation of the capital accumulation equation.

Steady state. Comparative statics (predictions of the model): changes in saving rate, in population growth rate, etc.

The golden rule of capital accumulation.

Solow model with labour augmenting technological progress.

Endogenous growth theory.

**(DFS Ch.3-4; B Ch.10-12; M 3.2, 7-8)**

#### **Further reading**

Barro R.J., X.Sala-i-Martin, *Economic Growth*, McGraw-Hill, 1995 (Introduction).

Baumol W., Productivity growth, convergence, and welfare: What the long-run data show, *American Economic Review*, 76 (5), pp.1072-1085, 1986.

Bosworth B., S.M.Collins, Accounting for growth: comparing China and India, *Journal of Economic Perspectives*, 22(1), pp. 45-66, 2008.

Easterlin R.A., The worldwide standard of living since 1800, *Journal of Economic Perspectives*, 14 (1), pp.7-26, 2000.

Charles J., *Introduction to economic growth*, second edition, Norton 2002, Chapters 1-4.

Romer P., The origins of endogenous growth, *Journal of Economic Perspectives*, 8(1), pp. 3-22, 1994.

#### **6. Theories of consumption**

Keynesian consumption function and Kuznets puzzle. Intertemporal choice model. Life Cycle and Permanent Income theories. PIH under rational expectations.

Barro-Ricardo equivalence. Reasons for the failure of Barro-Ricardian equivalence.

Fiscal policy. Implications of Barro-Ricardo equivalence.

**(DFS Ch.13, B Ch.16, 26.2; M Ch.15.4, 16)**

### **Further reading**

Barro R., Are Government Bonds Net Wealth? *Journal of Political Economy*, December 1974, pp.1095-1117.

Hall R., Stochastic Implications of the Life Cycle-Permanent Income Hypothesis: Theory and Evidence, *Journal of Political Economy*, December,1978.

Modigliani F., Life cycle, individual thrift, and the wealth of nations, *American Economic Review* 76(3), pp. 297-313, 1986.

### **7. Theories of investment**

Yield to maturity and term structure of interest rates. Stock market and the price of stock.

Keynesian theory on aggregate investment. The components of investment spending.

Neoclassical model of investment. Accelerator models of investment. Tobin's q-theory.

**(DFS Ch.14, 18.1-18.2; B Ch.14-16; M Ch.4, 17.1)**

### **Further reading**

Hall R., D.Jorgenson, Tax policy and investment behaviour, *American Economic Review* 57(3), pp. 391-414, 1967.

### **8. Money demand and money supply**

Functions of money. The transactions demand (Baumol-Tobin model).

The speculative theory of money demand: demand for money as a safe asset.

The modern quantity theory of money.

The monetary base and the money supply. The money multiplier model.

Control of the central bank over the money supply.

**(DFS Ch.15-16; B Ch.4; M Ch.4, 18)**

### **Further reading**

Baumol W., The transaction demand for cash: an inventory theoretic approach, *Quarterly Journal of Economics*, 66, pp.545-556, 1952.

Friedman M. (1968) "The Role of Monetary Policy". *American Economic Review*, 58, pp. 1-17.

Tobin J., Liquidity preference as a behaviour towards risk, *Review of Economic Studies*, 25, pp.65-86, 1958.

### **9. Monetary policy**

Aggregate demand (AD) shocks. Responses to AD shocks: non-intervention, activist policy.

Time lags (inside and outside). Lucas critique.

Policy ineffectiveness proposition.

Monetary policy: targets and instruments.

Rules versus discretion. Time inconsistency problem. Solutions for time-inconsistency problem: constitutional rules, reputation, delegation to an independent authority with different preferences/incentives (independent central banker).

Examples of monetary policy rules.

**(DFS Ch.16-17; B Ch.17,23-26; M Ch.4,14-15)**

### **Further reading**

Bernanke B.S., F.S.Mishkin, Inflation targeting: a new framework for monetary policy? policy, *Journal of Economic Perspectives*, 11(2), pp.97-116, 1997.

Crowe, Christopher and Ellen E. Meade ‘The evolution of central bank governance around the world’, *Journal of Economic Perspectives* 21(4) 2007, pp.69–90.

Modigliani F., The monetarist controversy, or, should we forsake stabilization policies? *American Economic Review*, 67(2), pp. 1-17, 1997.

Sargent T.J., N. Wallace, Rational Expectations and the Theory of Economic Policy, *Journal of Monetary Economics*, July 1976, pp.199-214.

Taylor J.B. An historical analysis of monetary policy rules, *NBER working paper*, w6768, 1998 (<http://papers.nber.org/papers/w6768>)

## 10. Fiscal policy

The simple arithmetic of the government budget constraint. The implications of the Ricardian equivalence proposition for the conduct of fiscal policy. The theoretical underpinnings of fiscal policy and the debate between the active or passive use of fiscal policy. Discretionary use of fiscal policy. The determinants of seignorage, and the links between the budget deficit and inflation. Budget deficits as a source of high inflation.

(DFS Ch.1.9, 19.5-19.7; B Ch.22.3,23; M Ch.5.6,18.2, 19)

### Further reading

Alesina A., The political economy of the budget surplus in the United States, *Journal of Economic Perspectives*, 14(3), pp.3-19, 2000.

Chari V., J.K.Patrick, Modern macroeconomics in practice: how theory is shaping policy, *Journal of Economic Perspectives*, 20(4), pp.3-28, 2006.

Fisher S., R.Sahay, C.A.Vegh, Modern hyper- and high inflations, *Journal of Economic Literature*, 40(3), pp.837-880, 2002.

Taylor J.B. Reassessing discretionary fiscal policy, *Journal of Economic Perspectives*, 14(3), pp.21-36, 2000.

### DISTRIBUTION OF HOURS

#	Topic	Total hours	Contact Hours		Self-study
			Lectures	Seminars	
1	Aggregate demand in a closed economy: the IS-LM model	16	4	2	10
2	Aggregate demand in an open economy: the IS-LM-BP model	26	4	2	20
3	Unemployment and the AD-AS model	28	4	4	20
4	Inflation and the Phillips curve	28	4	4	20
5	Economic growth: the Solow model and endogenous growth theories	40	8	8	24
6	Theories of consumption	22	4	2	16
7	Theories of investment	14	2	2	10
8	Money demand and money supply	20	2	2	16
9	Monetary policy	26	4	2	20
10	Fiscal policy	20	2	2	16
	<b>Total:</b>	<b>240</b>	<b>38</b>	<b>30</b>	<b>172</b>