

# ISEG, 2023-2024

# PhD in Economics Topics of Macroeconomics

## **Syllabus**

- 1. Dynamic Stochastic General Equilibrium Models: A primer.
- 1.1. Simple dynamic stochastic general equilibrium models
- 1.2. Imperfect competition
- 1.3. The New Keynesian model
- 2. Dynamic Stochastic General Equilibrium Models: Methods and applications
- 2.1. DSGE models in practice: using Dynare
- 2.2. TBA
- 3. Readings in Macroeconomics
- 3.1. Economic growth and fiscal policy
- 3.2. Fiscal-monetary policy interactions
- 3.3. Financial markets and fiscal policy
- 3.4. Imperfect competition and non-linear dynamics
- 3.5. DSGE models with heterogeneous agents
- 3.6. Quantitative easing, housing

# **Objectives**

- To explain and evaluate macroeconomic models.
- To apply macroeconomic models to practical economic and policy issues.
- To show a knowledge of the macroeconomic literature in general and the reading list in particular.

## References

## Books

- Galí, J. (2015). *Monetary Policy, Inflation, and the Business Cycle*, 2<sup>nd</sup> ed. New Jersey: Princeton University Press.
- Heijdra, B. (2017). Foundations of Modern Macroeconomics, 3<sup>rd</sup> ed. Oxford: Oxford University Press.
- Ljungqvist, L. & Sargent, T. (2018). *Recursive Macroeconomic Theory*, 4<sup>th</sup> ed. Cambridge, MA: The MIT Press.
- Romer, D. (2019). Advanced Macroeconomics, 5th ed. New York: McGraw-Hill.
- Stokey, N. & Lucas, R. (1989). *Recursive Methods in Economic Dynamics*. Cambridge, MA: Harvard University Press.
- Wickens, M. (2012). *Macroeconomic Theory: A dynamic general equilibrium approach*, 2<sup>nd</sup> ed. Oxford: Princeton University Press.

# Articles and chapters for section 2

- King, R. & Rebelo, S. (2000). Resuscitating Real Business Cycles. In: Taylor, J. & Woodford, M. (eds). *Handbook of Macroeconomics*, Vol. 1B, pp. 931-42.
- Quadrini, V. (2011). Financial Frictions in Macroeconomic Fluctuations. *Economic Quarterly* 97(3), 209-254.



- Bernanke, B., Gertler, M. & Gilchrist, S. (1999). The Financial Accelerator in a Quantitative Business Cycle Framework. In: J. Taylor & Woodford, M. (eds). *Handbook of Macroeconomics*, Vol. 1C, pp. 1341-93.
- Kiyotaki, N. & Moore, J. (1997). Credit Cycles. Journal of Political Economy 105(2), 211-248.

# Articles for section 3

- Afonso, A., Arghyrou, M., Gadea, M. & Kontonikas, A. (2018). "Whatever it takes" to resolve the European sovereign debt crisis? Bond pricing regime switches and monetary policy effects, *Journal of International Money and Finance*, 86, 1-30.
- Benhabib, J. & Farmer, R. (1996). Indeterminacy and Sector-Specific Externalities. *Journal of Monetary Economics* 37(3), 421-443.
- Bleaney, M., Gemmell, N. & Kneller, R. (2001). Testing the Endogenous Growth Model: Public expenditure, taxation, and growth over the long-run. *Canadian Journal of Economics* 34(1), 36-57.
- Brinca, P., Holter, H., Krusell, P. & Malafry, L. (2016). Fiscal Multipliers in the 21<sup>st</sup> Century. *Journal of Monetary Economics* 77(C), 53-79.
- Christiano, L., Eichenbaum, M. & Evans, C. (1999), Monetary policy shocks: What have we learned and to what end?, ch. 02, p. 65-148 in Taylor, J. B. and Woodford, M. eds., Handbook of Macroeconomics, vol. 1, Part A,.
- Gabaix, X. (2020). A Behavioral New Keynesian Model. American Economic Review 110(8), 2271– 2327.
- Galí, J. (1994). Monopolistic Competition, Business Cycles, and the Composition of Aggregate Demand. *Journal of Economic Theory* 63(1), 73-96.
- Galí, J., López-Salido, D. & Vallés, J. (2007). Understanding the Effects of Government Spending on Consumption. *Journal of the European Economic Association* 5(1), 227-270.
- Greenwald, B. & Stiglitz, J. (1993). Financial Market Imperfections and Business Cycles. *Quarterly Journal of Economics* 98(1), 77-114.
- Jaimovich, N. (2007). Firm Dynamics and Markup Variations: Implications for sunspot equilibria and endogenous economic fluctuations. *Journal of Economic Theory* 137(1), 300-325.
- Jaimovich, N., Rebelo, S. & Wong, A. (2019). Trading Down and the Business Cycle. *Journal of Monetary Economics* 102(C), 96-121.
- Kaplan, G., Moll, B. & Violante, G. (2018). Monetary Policy According to HANK. *American Economic Review* 108(3), 697-743.
- Krusell, P. & Smith, A. (1998). Income and Wealth Heterogeneity in the Macroeconomy. *Journal of Political Economy* 106(5), 867-896.
- Lucas, R. (1986). Asset Prices in an Exchange Economy. Econometrica 46(6), 1429-1445.
- McCallum, B. (2001). Indeterminacy, Bubbles, and the Fiscal Theory of Price Level Determination. *Journal of Monetary Economics* 47(1), 19-30.
- Mehra, E. & Prescott, E. (1985). The Equity Premium: A puzzle. *Journal of Monetary Economics* 15(2), 145-162.
- Santos, C., Costa, L. & Brito, P. (2022). Demand, Supply and Markup Fluctuations. *The Economic Journal* 132 (644), 1620–1645.
- Silva, M. (2019). Corporate Finance, Monetary Policy, and Aggregate Demand. *Journal of Economic Dynamics & Control* 102(1), 1-28.

# **Schedule**

Sessions: Wednesday, 18:00-20:00h, room ANF 3 (Quelhas Building)



	1			
Date	Topic	Lecturer		
14.02.2024	Introduction	Afonso, Costa,		
	1.1. Simple DSGE	Gomes		
	models	L. Costa		
21.02.2024	Previous lecture continued	L. Costa		
28.02.2024	1.2. Imperfect competition	L. Costa		
08.03.2024	1.3. The New Keynesian model	L. Costa		
13.03.2024	Previous lecture continued	L. Costa		
20.03.2024	2.1. Using Dynare	S. Gomes (room 202, F2)		
27.03.2024	Easter holiday			
03.04.2024	Previous lecture continued	S. Gomes (room 202, F2)		
10.04.2024	2.2. TBA	S. Gomes (room 202, F2)		
17.04.2024	Previous lecture continued	S. Gomes (room 202, F2)		
24.04.2024	Computational	S. Gomes		
	assessment	(room 202, F2)		
	Topic		Presenters	Discussants
08.05.2024				
15.05.2024				

# The presentation of the articles must have the following features:

- 1. To be based upon the projection of overheads that are known as the presentation file (e.g. PowerPoint, Beamer).
- 2. To have the maximum duration of 15 minutes.
- 3. To have the following structure:
  - article topic;
  - relevant-literature framework;
  - the basic research question and the answer to it;
  - describing the basic model and its working;
  - main results;
  - conclusions.
- 4. The contribution to the strand of literature and recent developments.

**Signing up deadline:** 29 April 2024. Send e-mail message to aafonso@iseg.ulisboa.pt. The students should coordinate among themselves to choose the papers and the respective discussants.

**Deadline for sending the presentation file:** via e-mail to aafonso@iseg.ulisboa.pt up to the end of the preceding Friday in PDF format. Additionally, the file should be sent to the discussant.

# The discussion of the articles must have the following features:

1. To be based upon the presentation file produced by the presenter and made available at least 4 days in advance.



#### 2. To have the maximum duration of 5 minutes.

- 3. To have the following structure:
  - brief abstract of the paper contents;
  - agreement points with the presenter;
  - disagreement points with the presenter;
  - the contribution to the strand of literature.

#### Grading

#### **Normal Period**

The final mark in this period is the weighted average of the marks obtained in (i) a set of short classroom questions (10%), (ii) an individual computational assessment (20%), (ii) the presentation/discussion of articles (20%), and (ii) the exam (50%).

# (i) Classroom questions

There will be three short questions on each topic of chapter 1, based upon the core readings for that topic. Each question will be related to the readings so that it can be easily responded in 10 minutes by students that read those readings. Books in paper can be used, but not any electronic materials.

# (ii) Computational assessment

This assessment is a computational application based upon the lectures and seminars dedicated to computational DSGE models.

The assessment is individual and carried out in class. The usage of generative AI is strictly forbidden and browsers or communication apps should be kept closed during the entire assessment.

# (iii) Presentation and discussion of articles

Each student is responsible for presenting an article (A) in 15 minutes on one of the topics in chapter 3 of the syllabus and for discussing another article (B) in 5 minutes on a different topic.

Presentation of article A (12.5%) will be assessed considering the quality of the overheads, of the presentation, and of the responses to the discussant and other participants in the seminar.

Presentation of article B and also of the remaining articles (7.5%), will be assessed considering the quality of the discussion (paper B) and the overall participation in the seminars.

# (iv) Written exam

Individual, written, and unseen 2:15 hour examination papers are composed of 3 questions with identical weights based upon the articles presented in the seminars.

These are open-book exams and all the study materials in paper can be used. Scientific calculators are welcome, but personal computers, tablets, and cellular phones are strictly forbidden.

## **Re-sit Period**

The final mark in this period is the one obtained in the written exam. This exam has the same features and rules as the normal period one.

#### Teaching staff

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no	Nome	Presentation	Discussion	08/05/24	15/05/24