

**Module:** II – Economic Principles

**Name of course:** Macroeconomics

**Academic year:** 2023-24

**Duration:** 21 hours (3 ECTS)

**Course instructor:**

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**Course description:**

This course is concerned with macroeconomic theory and policy. We study the links between key macroeconomic variables such as output, unemployment, inflation, public debt and deficits, money supply, interest rates, exchange rates, asset prices, oil prices. We focus on the implications for business cycles and the design of fiscal, monetary, and exchange-rate policies.

We examine the topics from two perspectives:

- 1) real-world issues and case studies using historical and contemporary data, with special reference to the recent global financial crisis, the recent pandemic-induced macroeconomic crisis, and the current revival of inflationary pressures;
- 2) analytical concepts and frameworks that enable us to deal with the interactions between goods, labor and assets markets.

At the end of the course, students will be able to:

- 1) analyze and discuss the connection between the main macroeconomic variables;
- 2) explain what are the main determinants of business cycle fluctuations;
- 3) examine how fiscal and monetary policies can affect real macroeconomic activity through their interaction with goods, labor, and assets markets;
- 4) evaluate theories on the basis of the empirical evidence;
- 5) use both theory and evidence to investigate the actual pandemic-induced macroeconomic crisis;
- 6) analyze and critically discuss actual problems that governments, central banks, and international institutions have to face;

- 7) investigate policies and strategies can macroeconomic policy makers adopt to solve economic and financial problems, and evaluate their strengths and weaknesses.

### **Core Learning Material:**

The central learning resource is given by the **On Class Lectures**, which will be available on the *Teams* platform, combined with the **Lecture Notes**, which will be available on the MESCI website. Students may wish to accompany their study with the textbook ***Macroeconomics, Understanding the Global Economy (third edition, 2012)*** by **David Miles, Andrew Scott and Francis Breedon**. This is a widely used postgraduate macroeconomics textbook, which shows and explains several remarkable links between standard macroeconomic theories and historical as well as contemporary data.

Students are also provided with some academic articles and policy reports. Students are expected to study them as an essential part of the Course although they will find that some academic articles adopt techniques that are more advanced and display a greater level of conceptual difficulty than the Lecture Notes. That is the nature of academic articles. Students are however expected to understand and critically interpret their key points and arguments.

### **Optional Readings:**

Here below some useful reference for optional readings is listed. These readings are not essential and not required for the final examination. Students might want to read some of them in order to strength their background or investigate a particular topic further.

1) Mathematical tools needed to undertake the Course can be found in

- A.C. Chiang, *Fundamental Methods of Mathematical Economics*, McGraw-Hill, 2005.
- M. Rosser, *Basic Mathematics for Economists*, Routledge, 2003.

2) For Intermediate Macroeconomics books using analytical frameworks that are comparable to those adopted in our Course, it is suggested:

- A. Abel, B. Bernanke and D. Croushore, *Macroeconomics*, Prentice Hall, 2020.
- O. J. Blanchard, *Macroeconomics*, Prentice Hall, 2021.
- R. Dornbusch, S. Fischer and R. Startz, *Macroeconomics*, McGraw-Hill, 2018.
- R. T. Froyen, *Macroeconomics: Theories and Policies*, Prentice Hall, 2023.
- R. J. Gordon, *Macroeconomics*, Prentice Hall, 2021.
- S. D. D. Williamson, *Macroeconomics*, Prentice Hall, 2023.

3) For an advanced study of macroeconomic theory, it is finally suggested:

- F. C. Bagliano and G. Bertola, *Models for Dynamic Macroeconomics*, Oxford University Press, 2004.
- O. J. Blanchard and S. Fischer, *Lectures on Macroeconomics*, MIT Press, 1989.
- B. S. Heijdra and F. van der Ploeg, *The Foundations of Modern Macroeconomics*, Oxford University Press, 2002.
- D. Romer, *Advanced Macroeconomics*, McGraw-Hill, 2019.
- M. Wikens, *Macroeconomic Theory: A Dynamic General Equilibrium Approach*, Princeton University Press, 2012.

## **Syllabus and Readings:**

The Course develops five topics. The plan of the lectures is as follows.

### **Topic 1: Introduction to Macroeconomics**

Introduction to the course. Macroeconomic issues. Real GDP, unemployment, inflation, asset prices, debt and deficits, interest rates, exchange rates, oil prices: An international comparison. Empirical regularities. The language of Macroeconomics. Macroeconomic models: agents and markets. Budget constraints and the "Walras law". Flexible prices and the "law of demand and supply". Fixed prices and the "effective demand principle". "Voluntary" and "involuntary" unemployment. "Short run" and "long run". Macroeconomic Schools.

[1.1] Lecture Notes, pp. 1-26.

[1.2] D. Miles, A. Scott and F. Breedon (2012), *Macroeconomics, Understanding the Global Economy*, Chs 1, 2.

[1.3] S. Basu and A. M. Taylor (1999), Business Cycles in International Historical Perspective, *Journal of Economic Perspectives* 13, pp. 45-68.

[1.4] A. Shleifer (2009), The Age of Milton Friedman, *Journal of Economic Literature* 47, 123-135.

[1.5] C. M. Reinhart and K. S. Rogoff (2008), Is the 2007 US Sub-Prime Financial Crisis So Different? An International Historical Comparison, *American Economic Review* 98, pp. 339-344.

[1.6] F. S. Mishkin (2011), Over the Cliff: From the Subprime to the Global Financial Crisis, *Journal of Economic Perspectives* 25, pp. 49-70.

[1.7] C. Avery, W. Bossert, A. Clark, G. Ellison and S. F. Ellison (2020), An Economist's Guide to Epidemiology Models of Infectious Disease, *Journal of Economic Perspectives* 34, pp. 79-104.

[1.8] D. E. Bloom, M. Kuhn and K. Prettner (2021), Modern Infectious Diseases: Macroeconomic Impacts and Policy Responses, *Journal of Economic Literature*, forthcoming.

[1.9] B. Beach, K. Clay and M. Saavedra (2021), The 1918 Influenza Pandemic and Its Lessons for COVID-19, *Journal of Economic Literature*, forthcoming.

### **Topic 2: Fiscal Policy**

Aggregate expenditure and effective demand. Stylized facts on consumption and investment. The consumption function. Microfoundations of the consumption function. Consumption smoothing. The Income-Expenditure (YE) model with households and firms. The dynamic version of the YE model. The Keynesian multiplier. The YE model with production-lags. The YE model with households, firms, and the public sector. Budgetary policies. Fiscal deficits. Fiscal deficits and the business cycle. Cyclical deficits

and structural deficits. Fiscal policy and public debt dynamics. Debt crises. The case of balanced-budget policy rules.

[2.1] Lecture Notes, pp. 27-64.

[2.2] D. Miles, A. Scott and F. Breedon (2012), *Macroeconomics, Understanding the Global Economy*, Chs 10 (up to 10.7), 14, 18.

[2.3] M. Browning and T. F. Crossley (2001), The Lyfe-Cycle Model of Consumption and Saving, *Journal of Economic Perspectives* 15, pp. 3-22.

[2.4] J. Stiglitz (2008), The Triumphant Return of John Maynard Keynes, *Project Syndicate*, December.

[2.5] N. G. Mankiw (2010), Questions about Fiscal Policy: Implications from the Financial Crisis of 2008-2009, *Federal Reserve Bank of St. Louis Review*, May/June, pp. 177-183.

[2.6] A. J. Auerbach, W. G. Gale and B. H. Harris (2010), Activist Fiscal Policy, *Journal of Economic Perspectives* 24, pp. 141-164.

[2.7] P. R. Lane (2012), The European Sovereign Debt Crisis, *Journal of Economic Perspectives* 26, pp. 49-68.

[2.8] F. M. Martin and C. J. Waller (2012), Sovereign Debt: A Modern Greek Tragedy, *Federal Reserve Bank of St. Louis Review*, September/October, pp. 321-340.

[2.9] B. Eichengreen and U. Panizza (2014), A Surplus of Ambition: Can Europe Rely on Large Primary Surpluses to Solve its Debt Problem?, *NBER Working Papers* 20316, National Bureau of Economic Research.

[2.10] European Central Bank (2016), Government Debt Reduction Strategies in the Euro Area, *Economic Bulletin* 3.

[2.11] R. Hanna and B. A. Olken (2018), Universal Basic Incomes versus Targeted Transfers: Anti-Poverty Programs in Developing Countries, *Journal of Economic Perspectives* 32, pp. 201-226.

[2.12] P. Yared, (2019), Rising Government Debt: Causes and Solutions for a Decades-Old Trend, *Journal of Economic Perspectives* 33, pp. 115-140.

[2.13] European Central Bank (2019), Fiscal Rules in the Euro Area and Lessons from other Monetary Unions, *Economic Bulletin* 3.

[2.14] European Central Bank (2022), Next Generation EU: A Euro Area Perspective, *Economic Bulletin* 1.

[2.15] A. Alesina, C. Favero and F. Giavazzi (2019), Effects of Austerity: Expenditure- and Tax-Based Approaches, *Journal of Economic Perspectives* 33, pp. 141-162.

[2.16] O. Blanchard, A. Leandro and J. Zettelmeyer (2020), Redesigning EU Fiscal Rules: From Rules to Standards, *Economic Policy*, 72nd Economic Policy Panel Meeting.

[2.17] R. Reis (2022), Debt Revenue and the Sustainability of Public Debt, *Journal of Economic Perspectives* 36, pp. 103-124.

[2.18] K. J. Mitchener and C. Trebesch (2023), Sovereign Debt in the 21st Century, *Journal of Economic Literature*, forthcoming.

### **Topic 3: Monetary Policy**

Theories of investment. The investment function. Microfoundations of the investment function. Investment volatility. The YE model with endogenous investment: The IS schedule. Comparative statics and comparative dynamics of the IS schedule. Money and financial assets. Monetary base and money supply. Central Bank instruments. Stylized facts on money demand. Microfoundations of the money demand function. The money demand function. The LM schedule. Comparative statics and comparative dynamics of the LM schedule. The IS-LM model. The dynamic version of the IS-LM model. Monetary policy. Fiscal policy. Interactions between monetary and fiscal policies. The zero-lower-bound problem. Escaping liquidity traps: Fiscal stimulus vs. unconventional monetary policy.

[3.1] Lecture Notes, pp. 65-106.

[3.2] D. Miles, A. Scott and F. Breedon (2012), *Macroeconomics, Understanding the Global Economy*, Chs 10 (from 10.8 on), 13.

[3.3] C. Crowe and E. E. Meade (2007), The Evolution of Central Bank Governance around the World, *Journal of Economic Perspectives* 21, pp. 69–90.

[3.4] B. S. Bernanke (2013), A Century of US Central Banking: Goals, Frameworks, Accountability, *Journal of Economic Perspectives* 27, pp. 3-16.

[3.5] J. von Hagen (2009), The Monetary Mechanics of the Crisis, *Policy Contributions* 335, Bruegel.

[3.6] D. C. Wheelock (2010), Lessons Learned? Comparing the Federal Reserve's Responses to the Crises of 1929-1933 and 2007-2009, *Federal Reserve Bank of St. Louis Review*, March/April, pp. 89-107.

[3.7] G. Gorton and A. Metrick (2012), Getting Up to Speed on the Financial Crisis: A One-Weekend-Reader's Guide, *Journal of Economic Literature* 50, pp. 128-50.

[3.8] B. S. Bernanke and A. S. Blinder (1988), Credit, Money, and Aggregate Demand, *American Economic Review* 78(2), pp. 435-439.

[3.9] B. S. Bernanke and M. Gertler (1995), Inside the Black Box: The Credit Channel of Monetary Policy Transmission, *Journal of Economics Perspectives* 9, pp. 27-48.

[3.10] R. Reis (2013), Central Bank Design, *Journal of Economic Perspectives* 27, pp. 17-44.

[3.11] J. E. Ihrig, E. E. Meade and G. C. Weinbach (2015), Rewriting Monetary Policy 101: What's the Fed's Preferred Post-Crisis Approach to Raising Interest Rates?, *Journal of Economic Perspectives* 29, pp. 177-198.

[3.12] R. Böhme, N. Christin, B. Edelman and T. Moore (2015), Bitcoin: Economics, Technology, and Governance, *Journal of Economic Perspectives* 29, pp. 213-238.

[3.13] K. N. Kuttner (2018), Outside the Box: Unconventional Monetary Policy in the Great Recession and Beyond, *Journal of Economic Perspectives* 32, pp. 121-146.

[3.14] G. Dell'Ariccia, P. Rabanal and D. Sandri (2018), Unconventional Monetary Policies in the Euro Area, Japan, and the United Kingdom, *Journal of Economic Perspectives* 32, pp. 147-172.

[3.15] R. Baldwin, B. W. di Mauro (Eds) (2020), Mitigating the COVID Economic Crisis: Act Fast and Do Whatever It Takes, CEPR Press. Available on <https://voxeu.org/>.

[3.16] European Central Bank (2020), Negative Rates and the Transmission of Monetary Policy, *Economic Bulletin* 3.

#### **Topic 4: Exchange Rate Regimes and Macroeconomic Policies**

Open economies. The balance of payments. Nominal and real exchange rates: definition and stylized facts. Exchange-rate regimes. The historical evolution of exchange-rate systems. Globalization and the "bipolar view". The IS-LM model with households, firms, the public sector, and the foreign sector: Mundell-Fleming setups. Implications for monetary, fiscal and exchange-rate policies.

[4.1] Lecture Notes, pp. 107-141.

[4.2] D. Miles, A. Scott and F. Breedon (2012), *Macroeconomics, Understanding the Global Economy*, Chs 19, 21.

[4.3] IMF (2004), Classification of Exchange Rate Arrangements and Monetary Policy Frameworks. <http://www.imf.org/external/np/mfd/er/2004/eng/0604.htm>

[4.4] S. Fischer (2001), Exchange Rate Regimes: Is the Bipolar View Correct? *Journal of Economic Perspectives* 15, pp. 3-24.

[4.5] B. Laurence and E. G. de la Piedra (1998), Coordination of Monetary and Fiscal Policies, *IMF Working Paper* 98/25.

[4.6] European Central Bank (2012), The Monetary and Fiscal Policy Interactions in a Monetary Union, *ECB Monthly Bulletin*, July, pp. 51-64.

[4.7] F. P. Mongelli (2008), European Economic and Monetary Integration and the Optimum Currency Area Theory", *Economic Papers* 302.

[4.8] R. Beetsma and M. Giuliodori (2010), The Macroeconomic Costs and Benefits of the EMU and Other Monetary Unions: An Overview of Recent Research, *Journal of Economic Literature* 48, pp. 603-641.

[4.9] O. Accominotti and B. Eichengreen (2013), *The Mother of All Sudden Stops: Capital Flows and Reversals in Europe, 1919-32*, *NBER Working Papers* 19580, National Bureau of Economic Research.

[4.10] J. Stiglitz (2014), *Can the Euro Be Saved? An Analysis of the Future of the Currency Union*, *Rivista di Politica Economica* 3, pp. 7-42.

[4.11] M. Obstfeld and A. M. Taylor (2017), *International Monetary Relations: Taking Finance Seriously*, *Journal of Economic Perspectives* 31, pp. 3-28.

[4.12] T. Sampson (2017), *Brexit: The Economics of International Disintegration*, *Journal of Economic Perspectives* 31, pp. 163-184.

[4.13] P. R. Lane (2021), *The Resilience of the Euro*, *Journal of Economics Perspectives* 35, pp. 3-22.

[4.14] K. Rogoff (2022), *Emerging Market Sovereign Debt in the Aftermath of the Pandemic*, *Journal of Economic Perspectives* 36, pp. 147-166.

### **Topic 5: Unemployment, Inflation and the Role of Economic Policy**

The IS-LM model with endogenous prices: The AD schedule. The “Keynes” effect and the “Pigou” effect. The AS schedule. Perfect vs. imperfect competition. The AD-AS model. Microfoundations of labor demand and labor supply. Involuntary unemployment. The AD-AS model in the long run. Macroeconomic policies and “full” employment. Income distribution. The AD-AS model in logarithmic terms. Inflation theories. Inflation costs. The Phillips curve. Preferences of the policy maker for the unemployment-inflation trade-off. The optimal inflation rate. Policy implications. The AD-AS model with sticky wages. Keynesians vs. Neoclassicals. The “pure” Neoclassical model. Money neutrality, productivity shocks, and “real” business cycles. Stylized facts. Expectations and the Phillips curve. The Monetarist model. The Lucas critique. New Keynesian theories. “Discretion vs. commitment” in policy making.

[5.1] Lecture Notes, pp. 142-230.

[5.2] D. Miles, A. Scott and F. Breedon (2012), *Macroeconomics, Understanding the Global Economy*, Chs 7, 11, 12, 15.

[5.3] D. Romer (2000), *Keynesian Macroeconomics without the LM Curve*, *Journal of Economic Perspectives* 14, pp. 149-169.

[5.4] O. J. Blanchard (2008), *The Crisis: Basic Mechanisms, and Appropriate Policies*, *Massachusetts Institute of Technology - Working Paper* 09-01.

[5.5] European Central Bank (2010), *The ECB's Response to the Financial Crisis*, *ECB Monthly Bulletin*, October, pp. 59-74.

[5.6] J. H. Powell (2020), *New Economic Challenges and the Fed's Monetary Policy Review*, *Federal Reserve Bank of Kansas City Economic Symposium*, Jackson Hole, Wyoming, U.S.

- [5.7] C. Dustmann, B. Fitzenberger, U. Schönberg and A. Spitz-Oener (2014), From Sick Man of Europe to Economic Superstar: Germany's Resurgent Economy, *Journal of Economic Perspectives*, pp. 167-188.
- [5.8] M. Friedman (1968), The Role of Monetary Policy, *American Economic Review* 58, pp. 1-17.
- [5.9] J. Cochrane (2009), Are We All Keynesian Now?, University of Chicago.
- [5.10] L. E. Ohanian (2010), The Economic Crisis from A Neoclassical Perspective, *Journal of Economic Perspective* 24, 45-66.
- [5.11] R. J. Gordon (2011), The History of the Phillips Curve: Consensus and Bifurcation, *Economica* 78, *Special Issue: A. W. H. Phillips 50<sup>th</sup> Anniversary Symposium*, pp. 10-50.
- [5.12] A. W. Lo (2012), Reading about the Financial Crisis: A Twenty-One-Book Review, *Journal of Economic Literature* 50, pp. 151-78.
- [5.13] S. Contessi, P. De Pace and L. Li (2014), An International Perspective on the Recent Behavior of Inflation, *Federal Reserve Bank of St. Louis Review* 3, pp. 267-294.
- [5.14] J. H Powell (2020), New Economic Challenges and the Fed's Monetary Policy Review, *Federal Reserve Bank of Kansas City Economic Symposium*, Jackson Hole, Wyoming, U.S.
- [5.15] European Central Bank (2019), Drivers of Underlying Inflation in the Euro Area Over Time: A Phillips Curve Perspective, *Economic Bulletin* 4.
- [5.16] European Central Bank (2021), Comparing Recent Inflation Developments in the United States and the Euro Area, *Economic Bulletin* 6.
- [5.17] C. Binder and R. Kamdar (2022), Expected and Realized Inflation in Historical Perspective, *Journal of Economic Perspectives* 36, pp. 131-156.
- [5.18] J. H. Cochrane (2022), Fiscal Histories, *Journal of Economic Perspectives* 36, pp. 125-146.

**Exam:**

The exam is written. You are given **three questions** to answer. The examination must be completed in **one hour**. I give equal weight to each question; therefore, you are advised to distribute your time approximately equally over the three questions. I wish to see evidence of your ability to understand theoretical principles and of your ability to critically discuss their application. A specimen examination paper showing you the type of the written exam is provided to the students.