

January 11, 2021

## API-120: Advanced Macroeconomics of Open Economies II, Spring 2021

Harvard Kennedy School, Harvard University

### Staff:

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Faculty Assistant: Minoo Ghoreishi      [Minoo\\_Ghoreishi@hks.harvard.edu](mailto:Minoo_Ghoreishi@hks.harvard.edu)

**Teaching Fellow:** Can Soyly      Course email address: [mpaid.macro@gmail.com](mailto:mpaid.macro@gmail.com)  
Course Assistants: Julio Flores, Alberto Huitron and Yi Yang

### Times:

**Live lectures:** Tuesdays and Thursdays, 12:00 noon -1:15 p.m. EST.  
(Lectures 1-14 will be remote. Lectures 15-26 will offer an in-class option.  
If room capacity necessitates, there may be a Section B at 3:00-4:15pm.)  
**Review Sessions:** Fridays, 9:00-10:00 am EST (+ 3 more sessions preceding PS4-PS6 )  
**Final exam:** May 7.

**Course Description:** API-120 is the second in the two-course sequence on Advanced Macroeconomics in the MPA/ID program. Topics covered in the first half Macro II include international financial integration, exchange rate models, speculative attacks, the carry trade, portfolio choice, currency risk, default risk, and debt sustainability analysis. The second half of the course uses tools of dynamic optimization. It begins with long-term growth theory including the Solow, Ramsey, and endogenous growth models. It then offers primers on Overlapping Generations, Real Business Cycle theory, New Keynesian models, and Dynamic Stochastic General Equilibrium models.

**Nature of the approach:** The course is largely built around analytical models. Although real-world examples will appear throughout, the course will rely heavily on theoretical and econometric analysis, as is customary in economics classes.

**Who is expected to take the course:** This course, like Advanced Macroeconomics for the Open Economy I (API 119), is a required component of the MPA / International Development sequence. In addition to MPA/ID students, a student who has successfully taken API 119 in the fall can be admitted by permission of instructor.

## Weekly structure of the course:

A standard week will consist of two units. Each unit will consist of:

- (i) a required reading (plus others recommended). Before each live lecture, you should complete the required reading for the new unit;
- (ii) the live lecture from the Professor;
- (iii) an asynchronous component, which will include a mini-Lecture from the professor, plus quizzes. For Units 1-13, do the asynchronous component after the live lecture, as in API-119. For Units 15-26, do the asynchronous component *before the live lecture*, as in some other MPA/ID courses.

There will be a Friday review session conducted by the Teaching Fellow (TF), at 9 am for the first half of the semester (TBA for 2<sup>nd</sup> half). There will be six problem sets. For Problem Sets 4-6 we anticipate an extra TF review session before the due date, perhaps Tuesdays 2-3 pm EST.

The entire teaching team will also hold office hours. Students should make heavy use of [mpaid.macro@gmail.com](mailto:mpaid.macro@gmail.com), sending any and all questions to it. The teaching team will monitor it frequently. The response to a student's question may be a directly e-mailed answer, a decision to dedicate somebody's office hours to the topic in question, or the arrangement of a special bilateral appointment.

<b>Grading:</b>	20%: 6 Problem sets
	20%: Quizzes (in asynchronous modules)
	20%: Mid-term exam
	35%: Final exam
	5%: Course participation.

### Problem Set                      Due date (8:30 am, EST). No late problem sets.

- |    |   |
|----|---|
| 1. | Thurs., 2/4   |
| 2. | Thurs., 2/18  |
| 3. | Thurs., 2/25  |
|    | <i>[Mid-term exam, Thurs. March 11, 10:30-11:45 am]</i> |
| 4. | Friday, 4/2   |
| 5. | Friday, 4/16  |
| 6. | Friday, 4/30  |

*[Final exam: Friday, May 7. Two slots planned: 8-11 am & 8-11 pm, EST]*

Please note the dates for the mid-term and final exam. If you have conflicts for those dates, you should not register for the course.

Students must do quizzes and exams alone; no discussion with other students is allowed. Students are responsible for knowing what is in [the Academic Code](#), including this paragraph: *“Cheating on assignments or exams, plagiarizing or misrepresenting the ideas or language of someone else as one’s own, falsifying data, or any other instance of academic dishonesty violates the standards of our community, as well as the standards of the wider world of learning and affairs...If students submit work not their own..., including from the Internet, they will be subject to discipline by the HKS Administrative Board, ranging from a warning to required withdrawal or expulsion from HKS.”*

**First half of semester: Professor J. Frankel****I. INTEGRATION OF FINANCIAL MARKETS**

1. (1/26/2021) The theory of gains from intertemporal trade  
Mini-lecture: Graphical analysis
2. (1/28) Do financial markets work in practice as they do in theory?  
Mini-lecture: Macro-prudential policies
3. (2/2) Measuring financial integration: Interest Rate Parity  
Mini-lecture: Quantity tests of financial integration

**II. EXPECTATIONS, MONETARY POLICY, AND EXCHANGE RATE DETERMINATION**

4. (2/4) With flexible goods prices \_\_\_\_\_ PS 1 due 2/4  
Mini-lecture: Illustrations of the importance of expectations
5. (2/9) The speculative attack model  
Mini-lecture: Generations 2 & 3 of speculative attack models
6. (2/11) With sticky prices: The overshooting model  
Mini-lecture: Empirical performance of exchange rate forecasts

**III. THE CARRY TRADE, RISK, & PORTFOLIO DIVERSIFICATION**

7. (2/16) Forward rate bias  
Mini-lecture: Introduction to the exchange risk premium and portfolio balance model
8. (2/18) Optimal portfolio diversification \_\_\_\_\_ PS 2 due 2/18  
Mini-lecture : The efficient frontier, as viewed by Botswana's Pula Fund
9. (2/23) Exchange rate risk, equity risk, and home bias  
Mini-lecture: The portfolio balance model applied to country risk

**IV. DEBT & EM CRISES**

10. (2/25) Debt Sustainability Analysis \_\_\_\_\_ PS 3 due 2/25  
Mini-lecture: Explosive debt

11. (3/2) Default  
Mini-lecture: What determines sovereign spreads?
12. (3/4) Political business cycles and other fiscal failures  
Mini-lecture: The case of Chile's fiscal institutions
13. (3/9) EM crises: Early Warning Indicators

14. (3/11) *Midterm exam*  
(3/16 Academic wellness day)

### **Second half of semester: Professor F. Sturzenegger**

#### **V. GROWTH THEORY**

15. (3/18) Solow/Ramsey neoclassical growth model  
Mini-lecture: A review of differential equations and Hamiltonians
16. (3/23) Endogenous growth: Factor accumulation  
Mini-lecture: The Solow model with reproducible factors
17. (3/25) Endogenous growth: Models of innovation  
Mini-lecture: Can innovation be faster than optimal?
18. (3/30) Secular Stagnation or Explosive Growth? Taking the Theory to Practice  
Mini-lecture: An introduction to Eggerston, et al.
19. (4/1) Overlapping Generation Models \_\_\_ PS 4 due 4/2  
Mini-lecture: The  $r < g$  economy
20. (4/6) OLG application: Social Security  
Mini-lecture: How policy can go wrong.

#### **IV BUSINESS CYCLE THEORY**

21. (4/8) Real Business Cycles  
Mini-lecture: What is calibration?
22. (4/13) Search Theory and Unemployment Models  
Mini-lecture: Introducing a Bellman Equation  
(4/15 Academic Wellness Day) \_\_\_ PS 5 due Fri. 4/16

23. (4/20) New Keynesian models of fluctuations  
Mini-lecture: The Lucas model
24. (4/22) The DSGE approach  
Mini-lecture: Estimation of DSGE models
25. (4/27) Consumption and Macro Finance  
Mini-lecture: The equity premium puzzle

## V. DOING POLICY

26. (4/29) Doing Policy: A Personal Conversation \_\_\_\_\_ PS 6 due 4/30

Final exam: May 7. Two time slots: 8-11am and 8-11pm (EST).

### Readings

- \* = required reading  
\*\* = required strongly  
\*\*\* = required strongly to read *before* lecture. You may be called upon.

### Readings for first half of semester (Prof. Frankel)

*World Trade & Payments* (WTP), by R.Caves, J.Frankel, and R.Jones (10th edition, Addison Wesley, 2007) is available via the [Coop](#); or at the professor's [Publications](#) page; or via chapter links below (as are other readings).

#### I. INTEGRATION OF FINANCIAL MARKETS

1. (1/26) The theory of gains from intertemporal trade

*World Trade and Payments*, 10<sup>th</sup> edition, [Chapter 21](#).5. \*\*\*

M. Obstfeld & K. Rogoff, 1996, *Foundations of International Macroeconomics*, Parts 1-4.

2. (1/28) Imperfections in financial markets, including the Lucas Paradox

Carmen Reinhart and Kenneth Rogoff, 2004, "[Serial Default And The 'Paradox' Of Rich-To-Poor Capital Flows](#)," *American Economic Review*, vol. 94, no.2, May, 53-58. \*\*\*

Eswar Prasad, Raghuraj Rajan, and Arvind Subramanian, 2007, "[The Paradox of Capital](#)," *Finance & Development*, (IMF), March, 44, no.1, 10-13. \*

Robert Lucas, 1990, "[Why Doesn't Capital Flow from Rich to Poor Countries?](#)" *American Economic Review* 80, no. 2: 92–96.

Laura Alfaro, Sebnem Kalemli-Ozcan and Vadym Volosovych, 2008, "[Why Doesn't Capital Flow from Rich to Poor Countries? An Empirical Investigation](#)," *Rev.Ec.& Stat.*, 90, 2, 347-68. [NBER WP 11901](#).

Mark Aguiar and Gita Gopinath, 2007, "[Emerging Market Business Cycles: The Cycle is the Trend](#)," *Journal of Political Economy* 115, 1, February.

3. (2/2) Interest Rate Parity & other tests of financial integration

WTP, Chapters [21.4](#), [27.1](#) . \*\*\*

The International Monetary Fund, 2012, "[The Liberalization and Management of Capital Flows: An Institutional View](#)." November.

S. Avdjiev, W. Du, C. Koch, and H.S. Shin, 2019, "[The Dollar, Bank Leverage and Deviations from Covered Interest Parity](#)," *American Economic Review: Insights*, September, 1, no. 2, 193-208

## II. MONEY & MODELS OF EXCHANGE RATE DETERMINATION

4. (2/4) With flexible prices

WTP, 10<sup>th</sup> edition, [Chapter 27.2-27.3](#) and [Supplement to Ch. 27, S51-55](#) \*\*\*

Michael Mussa, 1976, "The Exchange Rate, the Balance of Payments, and Monetary and Fiscal Policy under a Regime of Controlled Floating," *Scandinavian J. of Econ.* 78, May, 229-48.

Robert Lucas, 1982, "[Interest Rates and Currency Prices in a Two-country World](#)," *Journal of Monetary Economics* 10, 3, 335-359.

"[One-way baht: For 15 years, 2 currencies have outperformed all others](#)," *Economist*, Dec.7, 2019. \*\*

5. (2/9) Speculative attack models

WTP, 10<sup>th</sup> edition, [Ch. 24.3](#) \*\*\*

Roberto Chang and Andres Velasco, 2000, "Liquidity Crises in Emerging Markets: Theory and Policy," in *NBER Macroeconomics Annual* (MIT Press, Cambridge).

6. (2/11) With sticky prices: the overshooting model

WTP, [Chapter 27.4-27.6](#). \*\*\*

Rudiger Dornbusch, 1976, "[Expectations & Exchange Rate Dynamics](#)" *JPE*, 84, 1161-76. \*\*

Kenneth Rogoff, 2002, "[Dornbusch's Overshooting Model After 25 Years](#)," The Mundell-Fleming Lecture, *IMF Staff Papers* 49. \*

## III. THE CARRY TRADE, RISK, PORTFOLIO DIVERSIFICATION

7. (2/16) Exchange rate forecasting, forward bias, and the risk premium

*World Trade and Payments*, 10<sup>th</sup> ed., [Chapter 28.1](#) \*\*\*

YW Cheung, Menzie Chinn, A.Garcia Pascual, and Yi Zhang, 2019, "[Exchange Rate Prediction Redux: New Models, New Data, New Currencies](#)," *J. Intl. Money and Finance*, Vol. 95, July, pp.332-362.

Markus Brunnermeier, Stephan Nagel & Lasse Pedersen, 2009, "[Carry Trades and Currency Crashes](#)," *NBER Macro Annual 2008*, vol.23, D.Acemoglu, K.Rogoff & M.Woodford, eds. NBER WP 14473.

Craig Burnside, Martin Eichenbaum & Sergio Rebelo, 2007. "The Returns to Currency Speculation in Emerging Markets," *Am Econ Rev.*, 97(2), pp. 333-338, May. [NBER WP. 12489](#).

Charles Engel, 1996, "The Forward Discount Anomaly and the Risk Premium: A Survey of Recent Evidence," *Journal of Empirical Finance*, June, pp. 123-191. [NBER WP 5312](#).

#### 8. (2/18) Optimal portfolio diversification

*World Trade and Payments*, [Chapter 28.2](#) & [Supplement to Ch.28](#), pp. S55-S58. \*\*\*

Hanno Lustig & Adrien Verdelhan, 2011, "[The Cross-Section of Foreign Currency Risk Premia and Consumption Growth Risk: Reply](#)," *AER*, 101, no.7,Dec.. [NBER WP 13812](#).

["Fear and favour: Exchange-rate shifts have helped the global economy"](#), *Economist*, Sept. 7, 2017.

#### 9. (2/23) Exchange rate risk, equity risk, and home bias

*World Trade and Payments*, [Chapter 28.3](#) \*\*\*

Nicolas Coeurdacier and Hélène Rey, 2013, "[Home Bias in Open Economy Financial Macroeconomics](#)," *Journal of Economic Literature*, 51 (1): 63-115.

### IV. DEBT & EM CRISES

#### 10. (2/25) Debt Sustainability Analysis

*World Trade and Payments*, [Supplement to Ch.24](#), pp. S47-S48. \*\*\*

["Brazil warned of 'explosive' build-up of public debt"](#), *Financial Times*, 24 May 2016.

Klaus Regling, "[Solidarity with Greece will render its debt sustainable](#)," *FT*, Sept. 19, 2017.

["IMF warns eurozone that Greece needs more Greek debt relief"](#), *Fin. Times*, Aug. 1, 2018.

["The eurozone recovery achieves critical mass"](#), *Financial Times*, Sept. 20, 2017.

["Why securing debt forgiveness for poor countries is so hard"](#) *Economist*, Oct.17, 2020. \*\*

#### 11. (3/2) Sovereign default

Josefin Myer, Carmen Reinhart, & Christoph Trebesch, 2019, "Sovereign Bonds since Waterloo," NBER WP No. [25543](#). [Summary in NBER Digest](#), April 2019. \*

J.Bulow, C.Reinhart, K.Rogoff & C.Trebesch, 2020, "[The Debt Pandemic](#)," *Finance & Dev.*, Fall. \*\*

["Frontier market borrowing binge"](#), IMF blog with video, Nov. 18, 2019. Based on "[Emerging and Frontier Markets: Mind the Debt](#)," Chapter 4 of *Global Financial Stability Report*, IMF, Oct. 2019.

["Jamaica's tumultuous relationship with the IMF has a happy ending,"](#) *The Economist*, Nov. 9, 2019.

["Zambia was already a case study in how not to run an economy. Then came covid-19,"](#) *The Economist*, May 2, 2020.

["Transparency offers way out of Zambia debt crisis,"](#) *Financial Times*, Oct. 19, 2020. \*\*

["Debt dilemma: Emerging countries seek action to avert crisis,"](#) *Financial Times*, Dec. 20, 2020. \*\*

## 12. (3/4) Fiscal failures (including the Political Business Cycle)

J. Frankel, Carlos Végh and Guillermo Vuletin, 2013, ["On Graduation from Fiscal Procyclicality,"](#) *J. Development Econ.* 100, no.1, Jan., pp.32-47. [NBER WP 17619](#). Summary: ["Fiscal Policy in Developing Countries: Escape from Procyclicality,"](#) *Vox.EU*, June 23, 2011. \*\*

## 13. (3/7) EM crises: Early Warning indicators

WTP, [Ch. 24.1-24.2, 24.4-24.5 & 24.8](#) \*\*

J. Frankel, and G. Saravelos, 2012, ["Are Leading Indicators Useful for Assessing Country Vulnerability? Evidence from the 2008-09 Global Financial Crisis,"](#) in *J. International Economics*. 87, no.2, July, 216-231; [NBER WP 16047](#). [HKS RWP 11-024](#). Summary at [VoxEU](#), 2010 \*

["Emerging-market debt: A run for your money,"](#) *The Economist*, Aug.28, 2010.

["Economic epidemiology,"](#) *The Economist*, June 16, 2012.

["Financial indulgence,"](#) *The Economist*, April 5, 2014.

["Emerging markets debt: The well runs dry,"](#) *The Economist*, March 5, 2016. \*

["Hot and Sour: What Asia learned from its financial crisis 20 years ago,"](#) *The Economist*, July 1, 2017.

## 14. (3/11) Midterm exam

### Readings for second half of semester (Prof. Sturzenegger)

Textbooks:

Campante, F., Sturzenegger F. and Velasco A. (2021) *"An Easy Guide to Advanced Macroeconomics"*, forthcoming, LSE Press. (hereafter in the Syllabus CSV). \*\*\*

Romer, David (2019) *Advanced Macroeconomics*, Mc Graw Hill, Fifth Edition. \*

## 4. (3/18) Solow and Ramsey's Neoclassical Growth Model

CSV, Chapters 1 and 2 and 16.4 \*\*\*

Romer, D (2019) *Advanced Macroeconomics*, Chapter 1 & 2A (Same in 4th and 5th ed) \*

Solow, R. M. (1956). "A Contribution to the Theory of Economic Growth". *The Quarterly Journal of Economics*, Vol. 70 (1), pp. 65-94.

\*\* Blanchard, O. J., & Fischer, S. (1989) *Lectures on Macroeconomics*. MIT press. Chapter 2.

Ljungqvist, L. and T. Sargent (2018) *Recursive Macroeconomic Theory*, Fourth Edition, The MIT Press.

Straub, L. & Werning, I. (2020) "Positive Long Run Capital Taxation, Chamley and Judd Revisited", *American Economic Review*, Vol. 110 (1), January, pp. 86-110.

## 5. (3/23) Endogenous Growth: Factor Accumulation

CSV, Chapters 3-9\*\*\*

Romer, D (2019) *Advanced Macroeconomics*, Chapter 3.4-3.6 (Same in 4th and 5th ed)\*

Lucas, R. (1988) On the Mechanics of Economic Development. *Journal of Monetary Economics*, Vol. 22 (1), pp. 3-42.

Romer, P. M. (1990) Endogenous technological change. *Journal of Political Economy*, Vol. 98, pp. 71-102.

Ljungqvist, L. and T. Sargent (2018) *Recursive Macroeconomic Theory*, The MIT Press, Chapter 15.1-15.5. \*\*

## 16. (3/25) Endogenous Growth: Models of Innovation

CSV, Chapter 5 \*\*\*

Ljungqvist, L. and Sargent, T. (2018) *Recursive Macroeconomic Theory*, The MIT Press, Chapter 15.6-15.7. \*\*

Grossman, G. M. & Helpman, E. (1991) *Innovation and Growth in the Global Economy*. MIT press.

Aghion, P., and Howitt P. (1992) "A Model of Growth Through Creative Destruction." *Econometrica*, Vol. 60 (2), pp. 323-351.

Aghion, P. and Howitt, P. (2008) *The Economics of Growth*, MIT Press.

## 17. (3/30) Secular Stagnation or Explosive Growth? Taking the Theory to Practice

CSV, Chapters 5, 6 and 9 \*\*\*

Eggerston, G, Mehotra, N. and Robbins, J. (2017) A Model of Secular Stagnation: Theory and Quantitative Evaluation, Working Paper No. 742, Research Division Federal Reserve Bank of Minneapolis. (Only sections 1, 2 and 3). \*\*\*

Summers, L. (2015) "Low Real Rates, Secular Stagnation and the Future of Stabilization Policy", Banco Central de Chile Annual Conference. \*\*\*

Kremer, M. (1993) "Population Growth and Technological Change: One million BC to 1990". *The Quarterly Journal of Economics*, 108 (3), pp. 681-716. \*\*

Galor, O. (2005) "From Stagnation to Growth: Unified Growth Theory", *Handbook of Economic Growth*, Vol. 1, Part A, Chapter 4, pp 171-293, Elsevier.

Piketty, T. (2013) *Capital in the XXIst Century*, Harvard University Press.

Gordon, R. (2017) *The Rise and Fall of American Growth*, Princeton University Press.

AlphaGo The Movie, (2017), Youtube. \*\*

Acemoglu, D. and Restrepo, P. (2017) "Secular Stagnation? The Effect of Aging on Economic Growth in the Age of Automation", *American Economic Review*, Papers and Proceedings, Vol 107 (5), May, pp. 174-179.

Gordon, R. (2018) "Why Has Economic Growth Slowed When Innovation Appears to be Accelerating?" NBER Working Paper No. 24554. \*\*

## 18 & 19 (4/1 & 6) OLG Models and Social Security

CSV, Chapters 7 and 8. \*\*\*

Romer, D (2019) *Advanced Macroeconomics*, Chapter 2B (Same in 4th and 5th ed) \*

Diamond, P. (1965) "National Debt in a Neoclassical Growth Model". *The American Economic Review*, Vol. 55 (5), pp. 1126-1150.

Blanchard, O. (1985) "Debt, Deficits, and Finite Horizons". *Journal of Political Economy*, Vol. 93 (2), pp. 223-247.

Ljungqvist, L. and Sargent, T. (2018) *Recursive Macroeconomic Theory*, The MIT Press. Chapter 9.

Blanchard, O. (2019) "Public Debt and Low Interest Rates" *American Economic Review*, Vol. 109 (4), pp. 1197–1229. \*\*

## 20. (4/8) Real Business Cycles

CSV, Chapter 12. \*\*\*

Romer, D (2019) *Advanced Macroeconomics*, Chapter 5 (Same in 4th and 5th ed) \*

Prescott, E. (1986) "Theory Ahead of Business Cycle Measurement", *Federal Reserve Bank of Minneapolis Quarterly Review*, pp. 9-22. \*\*\*

Mendoza, E. (1991) "Real Business Cycles in a Small-Open Economy," *American Economic Review*, Vol. 81, pp. 797–818.

Rebelo, S. (2005) "Real Business Cycle Models: Past, Present and Future" *The Scandinavian Journal of Economics*, Vol. 107 (2), June, pp. 217-238.

Lee Ohanian, (2010) "The Economic Crisis from a Neoclassical Perspective". *Journal of Economic Perspectives*, Vol. 24 (4), Fall, pp. 45-66.

Uribe M. and Schmitt-Grohe, S. (2017) *Open Economy Macroeconomics*, Princeton University Press., Caps. 1 and 4.

Eichenbaum, M., Rebelo, S. and Traband M. (2020) *The Macroeconomics of Epidemics*, NBER Working Paper 26882, March. \*\*

## 21. (4/13) Search Theory and Unemployment Models

CSV, Chapter 14. \*\*\*

Diamond, P. (1982) "Wage Determination and Efficiency in Search Equilibrium."; *Review of Economic Studies* Vol. 49 (2), April, pp. 217-227.

Mortensen, D., and Pissarides, C. (1994) "Job Creation and Job Destruction in the Theory of Unemployment"; *Review of Economics Studies* Vol 61 (3) July, pp. 397-415.

Tommasi M. (1994), "The Consequences of Price Instability on Search Markets: Towards Understanding the Effects of Inflation", *American Economic Review* Vol. 84 (5), December.

Rogerson, R., Shimer, R. and Wright, R. (2005) "Search-Theoretic Models of the Labor Market: A Survey". *Journal of Economic Literature*, Vol. 43 (4), pp. 959-988. \*\*

Ljungqvist, L. and Sargent, T. (2018) *Recursive Macroeconomic Theory*, The MIT Press. Chapters 6 and 26.

## 22. (4/20 and 22) **New Keynesian Models of Fluctuations and the DSGE Approach**

CSV, Chapter 13, 15 and 19. \*\*\*

Romer, D (2019) *Advanced Macroeconomics*, Chapter 7 (Same in 4th and 5th ed) \*

Lucas, R. (1973), "Some International Evidence on Output-Inflation Tradeoffs", *The American Economic Review*, Vol 63 (3), pp. 326-334.

Calvo, G., (1983) "Staggered Prices in a Utility-Maximizing Framework," *Journal of Monetary Economics*, Vol. 12 (3), pp. 383-98.

Woodford, M. (2003) *Interest Rates and Prices*, Princeton University Press, Chapters 1 and 2.

Galí, J. (2008) *Monetary Policy, Inflation and the Business Cycle*, Princeton University Press. Ch. 2 to 4 and 6. \*\*

Collar, F., 2009, "Stochastic simulations with DYNARE: A practical guide,"

<http://www.dynare.org/documentation-and-support/tutorial>

Christiano, L., Trabandt, M. and Walentin, K. (2011) "DSGE Models for Monetary Policy Analysis", in: B. Friedman & M. Woodford (ed.), *Handbook of Monetary Economics*, vol. 3, Ch. 7, pp. 285-36.

Krugman, P. and Eggerston, G, (2012) "Debt Deleveraging, and the Liquidity Trap: a Fisher-Minsky-Koo Approach", *The Quarterly Journal of Economics*, August, 127 (3), pp. 1469-1513.

Christiano, L., M. Eichenbaum and M. Trabandt (2018) "On DSGE Models." *Journal of Economic Perspectives*, Vol. 32 (3), pp. 113-40, Summer.

Gali, J. (2020) "Monetary Policy and Bubbles in a New Keynesian Model with Overlapping Generations", Mimeo. CREI.

Cochrane, J. (2021) *The Fiscal Theory of the Price Level*, Chapter 1, 2 and 5.

## 24. (4/27) **Consumption and Macro Finance**

CSV, Chapter 10. \*\*\*

Romer, D (2019) *Advanced Macroeconomics*, Chapter 8 (Same in 4th and 5th ed) \*

Blanchard, O. J., & Fischer, S. (1989) *Lectures on Macroeconomics*. MIT press. Chapter 6.

\*Manuelli, Rodolfo (2020) Policy Dependent Asset Returns Through the Lens of the CCAPM Model: The Case of Argentina. Mimeo, Washington University in St. Louis. December.

Gourinchas P. and J. Parker (2002) "Consumption over the Life Cycle", *Econometrica*, Vol. 70 (1), pp 47-84. \*\*

Cochrane J. (2005) *Asset Pricing Revised Edition*, Princeton University Press, Chapter 1. \*\*

Barro, R. (2006) "Disaster and Asset Markets in the Twentieth Century", *The Quarterly Journal of Economics*, Vol. 121 (3), pp. 823-866.

Madrian B. (2015) "Applying Insights from Behavioral Economics to Policy Design", *Annual Review of Economics*. Vol 6, pp. 663-688.

Madrian B., Beshears J., Choi J., and Laibson D. (2021) "Behavioral Economics and Household Finance", in Bernheim D., DellaVigna S., Laibson D. *Handbook of Behavioral Economics*. Elsevier; Forthcoming.

## 25. (4/29) Doing Policy: a Personal Conversation

Sturzenegger F. and J. Zettelmeyer (2006) *Debt Defaults and Lessons From a Decade of Crisis*, MIT Press.

Sturzenegger, F. (2019) Macri's Macro The Elusive path to Stability and Growth, *Brookings Papers on Economic Activity*, Spring, pp. 339-411. \*\*\*

Sturzenegger, F. (2020) "How Should Central Banks Accumulate Reserves?" Working Paper No. 124, Universidad de San Andres.

We list below (in chronological order) a number of classical texts in macroeconomics that you may want to know about and may be handy as references sometime during your career.

Blanchard, O. J., & Fischer, S. (1989). *Lectures on Macroeconomics*. MIT Press.

Obstfeld, M. and K. Rogoff (1996) *Foundations of International Economics*, MIT Press.

Woodford, M. (2003) *Interest Rates and Prices*, Princeton University Press

Cochrane, John (2005). *Asset Pricing, Revised Edition*, Princeton University Press

Galí, J. (2008), *Monetary Policy, Inflation and the Business Cycle*, Princeton University Press.

Acemoglu, Daron (2009) *Modern Economic Growth*, Princeton University Press.

Uribe M. and S. Schmitt-Grohe (2017), *Open Economy Macroeconomics*, Princeton University Press.

Ljungqvist, L. and T. Sargent (2018) *Recursive Macroeconomic Theory*, Fourth Edition, The MIT Press.