API-119: Advanced Macroeconomics for the Open Economy I, Fall 2023

Course Syllabus: prospectus, schedule and readings

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Times:
Lectures: M/W 1:30-2:45pm 1 WEX 436.
Review Sessions: Wednesdays, 4:30-5:45 and 6:00-7:15 pm Starr 2
Final exam: Friday, Dec. 8, 2:00-5:00 pm.

Prospectus

Course Description: API-119 is the first in the two-course sequence on Macroeconomics in the MPA/ID program. It particularly emphasizes the international dimension. The general perspective is that of economies that are small and open, defined as those for whom world income, world inflation and world interest rates can be taken as given, and possibly the terms of trade as well. Questions covered are monetary, fiscal, and exchange rate policy, and the determination of the current account balance, inflation, and GDP relative to potential. Models of devaluation include one that focuses on the price of internationally traded goods relative to non-traded goods. One theme is the implications of increased integration of global financial markets. Another is countries’ choice of monetary regime, particularly the degree of exchange rate flexibility. Applications are to Emerging Market and Developing Economies. They include commodity-exporting countries. (Some financial topics -- including exchange rate overshooting, speculative attacks, portfolio diversification and debt crises -- will be covered in the first half of Macro II, API-120, in February-March.)

Nature of the approach: The course is largely built around analytical models. Although real-world examples will appear throughout, we rely heavily on theoretical and econometric analysis, as is customary in economics classes. Having said that, the course largely leaves to the successor course, API 120, the mathematical derivation of behavioral equations from first principles of individuals’ optimization of intertemporal utility.

Who is expected to take the course: This course, like Advanced Macroeconomics for the Open Economy II (API 120), is a required component of the core sequence in the MPA in International Development program. Some students may one day be making policy recommendations or decisions in a central bank, economics ministry, or international financial institution. Some have taken advanced macro before, but are missing the real-world intuition behind theory. Most other students are less macro-oriented, but want to understand what it is all about. Many are happy if the course leaves them better able to read the Economist or Financial Times. In addition to MPA/IDs, two or three other students are sometimes admitted by permission of instructor.

Required tools: Besides macroeconomics, some knowledge of basic microeconomics is presumed. Analytical tools to be used include especially calculus.

1/ 1st 3 lectures: Mon., Aug.28; Wed., Aug.30; and Fri., Sept.1.
Weekly structure of the course:

A standard week will consist of two units. Each unit will consist of:
(i) required readings, plus other recommended readings, including applications from the media,
(ii) the live lecture from the professor,
(iii) an asynchronous component, which includes one or more mini-lectures recorded by the professor plus short quizzes on all the material for that unit. Quizzes following Monday lectures are due that Friday at 8:30 am and quizzes following Wednesday lectures are due the next Monday at 8:30 am. Late quizzes will be marked down 1 point per day. Before each live lecture, students should complete the required reading for the new unit. They should also have completed the asynchronous module for the preceding lecture.

In addition, most weeks will include:
(a) Wednesday afternoon live review sessions conducted by the Teaching Fellow (TF), concentrating on material relevant for that week’s problem set when one is due. Attending the review session is strongly recommended.
(b) The problem set itself, due Friday, 10:00 am. Late problem sets are not accepted. (We post the answers.)

The entire teaching team will also hold office hours, TBA. Students should make heavy use of 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.

Grading: 25%: 9 Problem sets
15%: Quizzes *
20%: Mid-term exam
35%: Final exam
5%+: Class participation.

* Quizzes are to be taken after each live lecture, as part of the Asynchronous Module. Do not get behind in the quizzes.

Problem Set Due date (10:00 am). No late problem sets. (We post the answers.)
1. Fri., Sept. 8
2. Fri., Sept. 15
3. Fri., Sept. 22
4. Fri., Sept. 29

Midterm exam: Mon., Oct. 16
5. Fri., Oct. 20
6. Fri., Oct. 27
7. Fri., Nov. 3
8. Fri., Nov. 10
9. Fri., Nov. 17

Final exam: Fri., Dec. 8, 2:00 p.m.-5:00 pm.

Please note the date/time of the final exam. Do not make any conflicting travel plans.
Reggrading policy: On receiving your exam or problem set score, look carefully through the suggested answers and comments provided by the teaching team. Students who wish to submit their answer sheets for re-grading should, within two weeks, write a detailed email explaining their reason.

Academic integrity: Students must take quizzes and exams on their own, without discussion with other students. They are responsible for knowing what is in the Academic Code, including this: “Cheating on assignments or exams ... violates the standards of our community, as well as the standards of the wider world of learning and affairs...If students submit work either not their own or without clear attribution to the original source, including but not limited to the Internet, they will be subject to discipline by the HKS Administrative Board, ranging from a warning to required withdrawal or expulsion from HKS.”

Do not use ChatGPT or other generative AI in this course.

Readings:

For each lecture, there are typically two double-starred or triple-starred readings, which students are required to read in advance of the lecture. You may be called upon in lecture. The second half of this syllabus lists the readings in full. Readings are either scholarly articles, textbook chapters, or short news media stories. The readings below and on the Canvas course page contain links. If links to journal articles become broken, you can find articles by searching Harvard library’s E-Journals.

Required textbooks: The main textbook is the second half of World Trade and Payments, R. Caves, J. Frankel, & R. Jones (10th edition, Addison-Wesley Longman, 2007), which is abbreviated WTP on the reading list. Chapters are available online at the Canvas course page and also on my Publications page. The reading list also includes five excerpts from Filipe Campante, Federico Sturzenegger and Andres Velasco (abbreviated CSV), Advanced Macroeconomics: An Easy Guide, 2021 (LSE Press). The second half of API-120 in the spring will use this text extensively. Available on-line.

Textbooks for further background: Students should have already studied basic or intermediate macroeconomics. The necessary pre-requisite background in macroeconomics at a basic level is represented by Greg Mankiw, Macroeconomics, e.g., 10th ed., 2019. At a considerably more advanced level than WTP, two recommended texts, in addition to CSV, are: Maurice Obstfeld and Kenneth Rogoff, Foundations of International Economics (MIT Press, 1996); and Carlos Végh. Open Economy Macroeconomics in Developing Countries (MIT Press, 2013). For money and inflation, in particular, consult “Monetary Policy,” Chapter 12, of David Romer’s Advanced Macroeconomics, 5th ed. (McGraw Hill, 2019).

News stories: The reading list also includes media reports that serve as real-world applications for what you learn, particularly in The Economist and Financial Times. Their websites typically offer a few free downloads per month. But HKS and the Harvard Library subscribe and offer students access to a wide array of searchable news articles. Students can access these publications by establishing an account via the Harvard Library catalogue here. For the Financial Times (Harvard Login), you can register for a special "premium" account on the FT.com website by clicking on the link and using your Harvard e-mail address. (After the initial registration process, you can use your ID and password to access the FT.com web site directly. If you need to re-register, follow the link but then click the Sign In button instead of filling out the registration form.) If you have trouble, look for additional instructions for accessing select resources through the Knet database.
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Prof. Jeffrey A. Frankel, Harvard Kennedy School

Topics and schedule:

I. REVIEW OF BASIC MACRO CONCEPTS
1. GDP
   (8/28) Lecture 1: GDP accounting
   Asynchronous module 1: Measuring potential output

2. More identities
   (8/30) Lecture 2: Balance of payments accounting

II. DEVALUATION AND THE TRADE BALANCE
3. Trade elasticities
   (9/1) Lecture 3: The Marshall-Lerner condition
   Asynchronous mod. 3: Alternate assumptions of goods pricing in open economies
   [September 4: Labor Day holiday]

4. The trade balance in practice
   (9/6) Lecture 4: Empirical evidence on the elasticities
   Async.mod. 4: (i) A delayed J-curve, (ii) Overview of models of external balance.

PS 1 (Marshall-Lerner) due 9/8

III. THE MUNDELL-FLEMING MODEL
5. The open-economy Keynesian model
   (9/11) Lecture 5: The open-economy Keynesian multipliers
   Async.mod. 5: Goals (internal & external balance) & instruments

6. Meet the Mundell-Fleming model
   (9/13) Lecture 6: The Mundell-Fleming model with a fixed exchange rate
   Async.mod. 6: The Taylor Rule

7. Unconventional Monetary Policies
   (9/18) Lecture 7: Monetary policy at the Zero Lower Bound
   Async.mod. 7: The real interest rate in the model

8. International reserve flows
   (9/20) Lecture 8: Reserve flows in the Mundell-Fleming model
   Async.mod. 8: The example of China’s sterilization of inflows, 2003-08

PS 2 (Internal & external balance) due 9/15

9. Mundell-Fleming with a floating rate
   (9/25) Lecture 9: The model with a flexible exchange rate
   Async.mod. 9: The example of Japan’s 2012-15 monetary expansion

PS 3 (Mundell-Fleming with fixed exchange rate) due 9/22
10. Mundell Fleming with perfect capital mobility  
(9/27) Lecture 10: The model when the country loses control over its interest rate  
Async.mod. 10: The Impossible Trinity.  
PS 4 (more on Mundell-Fleming) due 9/29

IV. INFLATION

11. AD, AS, and Inflation  
(10/2) Lecture 11: Aggregate Demand & Aggregate Supply  
Async.mod. 11: (i) Chinese overheating, 2006-08, (ii) The Phillips Curve & the labor market

12. The rational expectations attack on activist monetary policy  
(10/4) Lecture 12: Rational expectations & dynamic inconsistency  
Async.mod. 12: (i) The case against activist policy, (ii) Why might high inflation hurt growth?  
[October 9: Columbus Day holiday]

13. How to achieve low-inflation credibility  
(10/11) Lecture 13: Addressing dynamic inconsistency of monetary policy  

14. (10/16)  
MIDTERM EXAM

15. Seigniorage and hyperinflation  
(10/18) Lecture 15: The theory of seigniorage  
Async.mod. 15 (i) Public borrowing, (ii) Venezuela case, (iii) Can seigniorage explain hyperinflation?

16. Case Study: Internal & external balance in China  
Async.mod. 16: (i) The Swan Diagram applied to China, (ii) Macro-prudential policies.

V. INTEGRATION OF GOODS MARKETS

17. How well-integrated are goods markets?  
(10/25) Lecture 17: (i) Gains from trade. (ii) Does arbitrage enforce PPP?  
Async.mod. 17: Barriers to international integration  
PS 6 (Central banking, with application) due 10/27

18. What explains failures of Purchasing Power Parity?  
(10/30) Do sticky prices give rise to PPP deviations?  
Async.mod. 18: The Law of One Price

19. The Balassa-Samuelson relationship  
(11/1) Lecture 19: The role of non-traded goods  
Async.mod. 19: Case: Was the renminbi “undervalued”?  
PS 7 (PPP) due 11/3
VI. SMALL OPEN ECONOMIES

20. The Salter-Swan SOE model
   (11/6) Lecture 20: Devaluation in small open economies
   Async.mod.20: Adjustment in the Salter-Swan model

21. Currency mismatch, balance sheets & contractionary devaluations
   (11/8) Lecture 21: Contractionary effects of devaluation
   Async.mod. (21): Did EMEs conquer original sin after 2001?

PS 8 (Salter-Swan model) due 11/10
   [Nov. 10: Veteran’s Day holiday]

22. Introduction to crises in Emerging Market Economies (EMEs)
   (11/13) Lecture 22: Sudden stops
   Async.mod.22: Managing outflows

23. The Dutch Disease
   (11/15) Lecture 23: Macroeconomic consequences of a natural resource boom
   Async.mod.: Governments often over-spend in boom times

24. EXTRA LECTURE, joint with Dev 401: The Natural Resource Curse
   (11/16) 3:00-4:15 pm. L150 -- Lecture 24: Pitfalls of a large primary sector
   Async.mod.: Pro-cyclicality.

PS 9 (Application & SOEs) due 11/17

VII. EXCHANGE RATE REGIMES

25. Pros and cons of fixed vs. floating exchange rates
   (11/20) Lecture 25: Advantages of fixing
   Async.mod. 25: Advantages of floating

   [11/22-11/26 Thanksgiving holiday]

26. Which dominate: advantages of fixing or floating?
   (11/27) Lecture 26: Optimum Currency Areas
   Async.mod. 26: Real shocks in developing countries

27. More on EM currencies
   (11/29) Lecture 27: Intermediate exchange rate regimes
   No asynchronous module.

   Friday, Dec. 8, 2:00 pm-5:00 pm.  FINAL EXAM
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READING ASSIGNMENTS

* = recommended reading
** = required to read, before lecture
*** = required strongly to read, before lecture. You may be called upon.

I REVIEW OF MACROECONOMIC CONCEPTS

1. (8/28) GDP accounting
   Campante, Sturzenegger & Velasco (CSV), 4.1, pp 46-47; 7.1, pp. 94-96: Growth acctg. *
   “China’s economy is more Soviet than you think,” Economist, Dec.15, 2018. **
   “Real-Time Economic Indicators Help Better Track Activity in Africa,” IMF blog, May 27, 2022. *

2. (8/30) Balance of payments accounting
   Caves, Frankel & Jones, World Trade and Payments (WTP), 2007, Chapters 15 & 17.2 ***
   “Pakistan’s economy: In need of re-stitching,” The Economist, June 16, 2018.
   “A milder infection: The Philippine peso is the champion of emerging-market currencies,” The Economist, July 23, 2020. **

II. DEVALUATION AND THE TRADE BALANCE

3. (9/1) The Marshall-Lerner condition
   Caves, Frankel & Jones, WTP, Chapter 16.1 (pp.291-97) & Supplemt (pp. S43-S44). ***

   Caves, Frankel & Jones, WTP, Chapter 16.2 (pp.297-301). ***
III. THE MUNDELL-FLEMING MODEL

5. (9/11) The open-economy Keynesian model
Caves, Frankel and Jones WTP, Chapters 17.1, 17.3 & 18.1-18.2
CSV, part of 17.4, pp.281-83. Fiscal multipliers. *

6. (9/13) Mundell-Fleming model of monetary & fiscal policy with a fixed exchange rate
Caves, Frankel & Jones, WTP, Chapters 18.3-18.4, 22.1-22.3
CSV, 15.1, pp. 226-231: IS-LM. *
“Argentine businesses battle to survive 40% interest rates,” Financial Times, June 11, 2018. *

7. (9/18) Monetary Policy at the Zero Lower Bound
CSV, 21.1, pp. 336-341: ZLB
“Emerging markets can use quantitative easing, too,” Financial Times, June 18, 2020. *
“Emerging markets’ experiments with QE have not turned out too badly,” Economist, 10/31/2020. *

8. (9/20) Reserve flows
Caves, Frankel & Jones, WTP, Chapters 19.1, 22.4-22.7
“Turkish lira up 2% after central bank raises interest rates to keep inflation in check,” FT, 7/8/2018.

WTP, Chapter 23.1-23.2
“Brazil’s economy: Wild horses – A soaring currency...” The Economist, Apr.23, 2011. **
“Why China has learned to relax about its currency,” The Economist, June 17, 2021.
10. (9/27) The model with perfect capital mobility; the Impossible Trinity

*WTP*, Chapter 23.3-23.4. ***


"Emerging markets are right to worry about capital flows," Duvvuri Subbaro, FT, June 22, 2021.*

"Arab central banks are tagging along with America’s rate rises," *The Economist*. August 17, 2022. **

IV. INFLATION

11. (10/2) Aggregate Demand, Aggregate Supply, and inflation

*WTP*, Chapter 26.1 ***


"Some like it hot: Which emerging economies are at greatest risk of overheating?" *The Economist*, July 2, 2011. *

"India lifts interest rate to curb price pressures," *Financial Times*, June 7, 2018. *

"Why Erdogan’s unorthodox Turkish economic experiment is not working," FT, Dec. 21, 2021. *

"Monetary madness -- Turkey's bizarre economic experiment enters a new phase," *The Economist*, June 1, 2023. ***

"Emerging markets warned against swift rate cuts until inflation is under control," *FT*, June 1, 2023.

12. (10/4) The rational expectations attack on activist monetary policy

*CSV*, 15.2, pp.231-238: The Lucas model **


"Monetary policy in Africa has become more orthodox," *The Economist*, 1/26/2019. **

13. (10/11) Addressing dynamic inconsistency of monetary policy

*WTP*, Chapters 26.3-26.4 ***


"Recep Tayyip Erdogan sacks the head of Turkey’s central bank," *The Economist*, July 13, 2019. **
14. **MIDTERM EXAM**

15. (10/18) Seigniorage and hyperinflation

*WTP*, Chapter 19.3 & page 582. ***


“Hyperinflation can end quickly, given the right sort of regime change,” Economist, Jan. 31, 2019. ***


“Sri Lanka shows the folly of fringe theories,” Bloomberg / Washington Post, April 18, 2022. *


“Stubborn optimism about China’s economy,” The Economist, July 3, 2021

“China economy teeters on brink of deflation,” Financial Times, July 11, 2023. *

V. INTEGRATION OF GOODS MARKETS

17. (10/25) Does arbitrage enforce Purchasing Power Parity?


18. (10/30) Do sticky prices give rise to PPP deviations?


19. (11/1) Nontraded goods and the Balassa-Samuelson relationship

“What the Big Mac index says about the dollar and the dong,” July 23, 2021. **
“Dollar-euro parity may be justified,” The Economist, July 21, 2022. *

VI. SMALL OPEN ECONOMIES

20. (11/6) The Salter-Swan SOE model

Caves, Frankel and Jones, WTP: Ch. 19.4, Appendix 19.C & Chapter 20. ***


21. (11/8) Currency mismatches and contractionary devaluation

WTP, Ch. 24.6 ***
J.Frankel, 2005, “Contractionary Currency Crashes in Developing Countries,” IMF Staff Papers 52, 2, 149-92. NBER WP No.11508. **

“Lira plunges as rates freeze raises fears over Erdogan’s economic role,” FT, 7/25/2018. *

[11/11 Veteran’s Day holiday]

22. (11/13) EM Sudden stops

WTP, Ch. 24.1-24.2, 24.7-24.7 ***

Guillermo Calvo, Leo Leiderman and Carmen Reinhart, 1996, “Inflows of Capital to Developing Countries in the 1990s,” Journal of Economic Perspectives, 10, 2, Spring, 123-139.

“Russia tapped foreign exchange reserves as rouble tumbled,” Financial Times, April 10, 2020. *
23. (11/15) Dutch Disease


“Nigeria’s economy: More misery ahead,” The Economist, June 1, 2019. **

“Bolivia is on the brink of an economic crisis,” The Economist, April 18, 2023.

24. EXTRA LECTURE (11/16) The Natural Resource Curse


“How to get rich from commodities: Tips from Botswana on how to avoid the resource curse,” The Economist, June 8, 2023. ***

VII. EXCHANGE RATE REGIMES

25. (11/20) Pros and cons of fixed vs. floating Rates


26. (11/27) Optimum Currency Areas

WTP, Chapter 26.5. ***


27. (11/29) Intermediate exchange rate regimes
