

API-120: Advanced Macroeconomics for the Open Economy, Fall 2018

Harvard Kennedy School

Course Syllabus: prospectus, outline/schedule and readings

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	Course Assistants:	Munmun Biswas, Maria Lucia Flores and Thebe Tsatsimpe.	
Times:	Lectures:	Mondays and Wednesdays, 2:45-4:00 pm, moved to W436. ¹	
	Review Sessions:	Fridays: reviews at 8:45 am and 10:15 in L230. ²	
	Final exam:	Friday, Dec. 14, 2:00-5:00 pm.	

Course Description: This course is the first in the two-course sequence on Macroeconomic Policy in the MPA/ID program. It particularly emphasizes the international dimension. The general perspective is that of developing countries and other small open economies, defined as those for whom the terms of trade are determined on world markets and for whom foreign income, inflation and interest rates can also be taken as given. The focus is on monetary, fiscal, and exchange rate policy, and on the determination of the current account balance, national income, and inflation. Models of devaluation include those where the price of internationally traded goods in terms of non-traded goods is central. A theme is the implications of increased integration of global financial markets. Another is countries' choice of monetary regime, especially the degree of exchange rate flexibility. There will be applications to the problems of commodity-exporting countries, among other topics. (Such topics as exchange rate overshooting, speculative attacks, portfolio choice and debt crises will be covered in the first half of API 119.)

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. This is not an appropriate course for students who want some basic exposure to open-economy macroeconomics. It requires sustained immersion in relevant economic theory, and will not present a primarily descriptive or historical approach. Having said that, the course largely leaves to the latter half of the successor course, API 119, 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 119), is a required component of the MPA / International Development sequence. It is envisioned that a typical student might one day be making policy recommendations or decisions in a central bank or economics ministry or an international financial institution, but first needs training at a high level of intellectual rigor. In addition to MPA/ID students, a very few other students are sometimes admitted by permission of instructor – for example, someone who has taken BGP-620 and done well in it, and who in addition is comfortable with calculus and the other mathematical tools that distinguish the MPA/ID curriculum.

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

^{1/} 1st lecture: Wed., Sept.5, 2nd lecture Friday, Sept. 7.

^{2/} On weeks when Problem Sets are due (on Thursdays) we also plan review sessions in advance: probably Tuesdays, 4:15-5:30.

Grading: Problem sets 25% (eight of them), mid-term exam 25%; final exam 50%.

Problem Set	Due date (10:10 a.m. in the MPA/ID drop box)	Special problem set review sessions (normally 4:15-5:30 in R304)
1.	Thurs., Sept. 13	Tues., Sept 11
2.	Thurs., Sept.20	Tues., Sept 18
3.	Thurs., Sept.27	Tues., Sept 25
4.	Thurs., Oct. 4	Tues., Oct 2
5.	Monday, Oct. 15	
6.	Thurs., Nov. 8	Tues., Nov. 6
7.	Thurs, Nov. 29	Tues. Nov. 27
8.	Thurs., Dec. 6	Tues., Dec.4

Please check the dates of the midterm and final exams. *If you cannot take the exams, do not take the course.*

You are urged to read the Academic Code:

www.hks.harvard.edu/var/ezp_site/storage/fckeditor/file/pdfs/degree-programs/registrar/academic_code.pdf

Readings:

For most lectures, there is a single triple-starred reading that students are required to read *in advance of the lecture*. You may be called on in class to answer a question based on the reading.

Readings are either scholarly articles, short news media stories, or textbook chapters. 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 available on canvas course site, plus some copies are on reserve at HKS library.

For lectures 7 and 10-13 [Money & Inflation], the text is "Monetary Policy," Chapter 12, of David Romer's *Advanced Macroeconomics*, 5th ed., McGraw Hill, 2019, or Chapter 10 in the 4th ed., 2012. (Romer is also the text for the 2nd half of API119, Macro II.)

Textbooks for further background: Most students will 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., 9th ed. (Worth: NY), 2015.

At a considerably more advanced level than *WTP*, the recommended text is Maurice Obstfeld and Kenneth Rogoff, *Foundations of International Economics* (MIT Press, 1996).

API-120: Macroeconomic Policy Analysis I

Prof. Jeffrey A. Frankel, Harvard Kennedy School

Topics and schedule:

Tentative due dates
for Problem Sets:

I. REVIEW OF BASIC MACRO CONCEPTS

1. (9/5) GDP accounting
2. (9/7) Balance of payments accounting & the National Saving identity
3. (9/10) The traditional Keynesian multiplier model

II. DEVALUATION AND THE TRADE BALANCE

4. (9/12) Pricing & the Marshall-Lerner condition _ PS 1 due 9/13
5. (9/17) The trade balance in practice.

III. THE MUNDELL-FLEMING MODEL

6. (9/19) The Mundell-Fleming model with a fixed exchange rate _ PS 2 due 9/20
7. (9/24) Monetary policy at the Zero Lower Bound
8. (9/26) Mechanisms of adjustment: Reserve flows _ PS 3 due 9/27
9. (10/1) The model with a floating rate & perfect capital mobility; The Impossible Trinity.

IV. INFLATION

10. (10/3) Aggregate Demand and Aggregate Supply _ PS 4 due 10/4
[10/8 Columbus Day holiday]
11. (10/10) Inflation and the rational expectations hypothesis
12. (10/15) Dynamically inconsistent monetary policy vs. monetary rules _ PS 5 due 10/15
13. (10/17) Seigniorage and hyperinflation
14. (10/22) **MIDTERM EXAM**
15. (10/24) Application: Macro policy in China #1 (2004-11).

V. INTEGRATION OF GOODS MARKETS

16. (10/29) Trade. Does arbitrage enforce PPP? Speed of adjustment.
17. (10/31) Barriers to integration.
18. (11/5) Nontraded goods and Balassa-Samuelson relationship.

VI. SMALL OPEN ECONOMIES

19. (11/7) Devaluation in small countries _ PS 6 due 11/8
[11/12 Veterans Day holiday]
20. (11/14) The Salter-Swan model featuring nontraded goods
21. (11/19) EM crises: Sudden stops, currency mismatches & contractionary devaluation
[11/21-11/25 Thanksgiving holiday]
22. (11/26) Dutch Disease
[possible optional lecture: The Natural Resource Curse]

VII. EXCHANGE RATE REGIMES

23. (11/28) Classification; Pros and cons of fixed vs. floating Rates _ PS 7 due 11/29
24. (12/3) Optimum Currency Areas & currency unions.
25. (12/5) More on EM currency crises _ PS 8 due 12/6
[possible optional lecture: Macro policy in China #2]

Friday, Dec. 14, 2:00-5:00 pm.

FINAL EXAM

API-120: Macroeconomic Policy Analysis I

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READING ASSIGNMENTS

* = required reading, available online when possible

** = required strongly, available online when possible

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

[] = background readings

I REVIEW OF MACROECONOMIC CONCEPTS

1. (9/5) GDP accounting

Paul Krugman, 1994, "[The Myth of the Asian Miracle](#)," *Foreign Affairs*, 73, 6, Nov., 62-78. **

2. (9/7) Balance of payments accounting and the National Saving identity

Caves, Frankel & Jones, *World Trade and Payments (WTP)*, 2007, Chapter 15 & 17.2 ***

"China Concerns: [Tourism deficit leaves current account vulnerable to trade shock](#)," *Financial Times*, June 14, 2018. **

"[Pakistan's economy: In need of re-stitching](#)," *The Economist*, June 16, 2018. *

3. (9/10) The Keynesian multiplier model

Caves, Frankel and Jones *WTP*, 2007, Chapter 17.1 & 17.3. ***

M.Bussière, et al, 2013, "[Estimating Trade Elasticities](#): Demand Composition and the Trade Collapse of 2008-2009," *AEJ: Macroec.* 5, 3, July, 118-51. [NBER WP 17712](#). *VoxEU Summary*, 2012.

II. DEVALUATION AND THE TRADE BALANCE

4. (9/12) The Marshall-Lerner condition

Caves, Frankel & Jones, *WTP*, 2007, Chapter 16 & Supplement, pp. S43-S44. ***

5. (9/17) The trade balance in practice.

Jaime Marquez, 2002, "Income and Price Effects of Asian Trade," in his *Estimating Trade Elasticities* (Kluwer, Boston), pp. 91-97. ***

III. THE MUNDELL-FLEMING MODEL

6. (9/19) Mundell-Fleming model of monetary & fiscal policy with a fixed exchange rate
Caves, Frankel and Jones *WTP*, 2007, Chapters 22.1-22.3, ***
[For background: *WTP* Chapter 18. Also Romer, Chapter 6.1]
Ethan Ilzetzki, Enrique Mendoza & Carlos Vegh, 2013, "[How Big \(Small?\) Are Fiscal Multipliers?](#)" *J.Mon.Ec.* 60, 2, 239-54. [NBER WP](#) 16479 or [IMF WP 1152](#). [Summary](#) NBER Digest, 2011. *
"[A stimulating question: Can emerging economies now afford counter-cyclical policies?](#)" *The Economist*, Dec. 13, 2008, p. 90. *
"[Argentine businesses battle to survive 40% interest rates,](#)" *Fin. Times*, June 11, 2018. **
7. (9/24) Monetary Policy at the Zero Lower Bound
Romer's *Advanced Macroeconomics*, Chapter 12.2 & 12.6-12.7 in 5th ed. *
8. (9/26) Mechanisms of adjustment: Reserve flows
Caves, Frankel and Jones *WTP*, 2007, Chapters 19.1, 22.4-22.7. ***
"[Hot money flows into Argentine peso spook President Macri,](#)" *Fin. Times*, May 27, 2016. *
"[Swiss central bank blames strong franc as eurozone pulls away,](#)" *Fin. Times*, June 16, 2017.
"[Turkish lira up 2% after central bank raises interest rates to keep inflation in check,](#)" *Financial Times*, July 8, 2018. **
9. (10/1) The model with a floating rate & perfect capital mobility; Impossible Trinity.
Caves, Frankel and Jones *WTP*, 2007, Chapter 23. ***
"[Brazil's economy: Wild horses – A soaring currency...](#)" *The Economist*, Apr.23, 2011. **
Robert Mundell, 1963, "Capital Mobility and Stabilization Policy under Fixed and Flexible Exchange Rates," *Canadian J .Ec.& P.S.*, Nov.

IV. MONEY AND INFLATION

10. (10/3) Aggregate Demand, Aggregate Supply, and money growth
WTP, Chapter 26.1 ***
Romer's *Advanced Macroeconomics* (McGraw Hill, 2019), Chapter 12.1 in 5th ed. *
Prachi Mishra & Peter Montiel, 2013, "[How Effective is Monetary Transmission in Low-income Countries? A Survey of the Empirical Evidence,](#)" *Economic Systems*. [vol.37, issue 2](#), June, 187–216. [IMF WP12143](#).
"[Some like it hot: Which emerging economies are at greatest risk of overheating?](#)" *Economist*, July 2, ++2011, p.65. **
"[India lifts interest rate to curb price pressures,](#)" *Financial Times*, June 7, 2018. *
"[Joblessness in Asia: The luxury of unemployment,](#)" *The Economist*, June 9, 2018, p.65.

11. (10/10) Inflation and the rational expectations hypothesis

David Romer, *Advanced Macroeconomics*, Chapt. 12.3 in 5th ed. ***

[Chapter 6.2-6.4 of David Romer's *Advanced Macroeconomics* 4rd ed., 2011]

["Argentina's inflation problem: The price of cooking the books,"](#) *Economist*, Feb. 25, 2012, 47-48.

12. 10/15 Dynamically inconsistent monetary policy vs. monetary rules

WTP, Chapters 26.3-26.4 ***

Romer, *Advanced Macroeconomics*, Chapters 12.8-12.9 in 5th ed. (11.7-11.8 in 4th ed.) **

Kenneth Rogoff, 1985, "[The Optimal Degree of Commitment to an Intermediate Monetary Target](#)," *Quarterly Journal of Economics* 100, Nov., 1169-1189.

Kenneth Rogoff, 2003, "Globalization and Disinflation," *Economic Review*, Federal Reserve Bank of Kansas City, 88, no. 4, 4th quarter, pp. 45-78.

J. Frankel, 2011, "[Monetary Policy in Emerging Markets: A Survey](#)," in [Handbook of Monetary Economics](#), Benjamin Friedman & Michael Woodford, eds. (North Holland). HKS [RWP 11-003](#); NBER WP 16125.

["Nigeria's Central Bank Chief Warns on Autonomy,"](#) *Financial Times*, June 7, 2012.

Mario Blejer, 2013, "[Political Central Banking: Get ready for the end of central bank independence](#)," *The International Economy*, 27, no.2, spring, pp. 32-33.

["The desperation of independents: Stubbornly low interest rates may mean the end of central-bank autonomy,"](#) *The Economist*, Aug, 6, 2016

13. (10/17) Seigniorage and hyperinflation

WTP, Chapter 19.3 & page 582 ***

Romer's *Advanced Macroeconomics*, Chapter 12.10 in 5th edition (11.9 in 4th ed.) *

Rudiger Dornbusch and Stanley Fischer, 1993, "[Moderate Inflation](#)," *World Bank Econ. Rev.* 7, 1, 1-44.

Philip Cagan, 1956, "The Monetary Dynamics of Hyperinflation," in Milton Friedman, ed., *Studies in the Quantity Theory of Money* (Univ. of Chicago Press, Chicago), 25-117.

14. (10/22)

MIDTERM EXAM

15. (10/24) Application: Macroeconomics in China 2004-11

J. Frankel, 2010, "[The Renminbi Since 2005](#)," in [The US-Sino Currency Dispute: New Insights from Economics, Politics and Law](#), edited by S. Evenett (CEPR: London), 51-60. **

Eswar Prasad, and Shang-Jin Wei, 2011, "[The Chinese approach to capital inflows: patterns and possible explanations](#)," in *Capital Controls and Capital Flows in Emerging Economies: Policies, Practices and Consequences* (University of Chicago Press): 421-480.

["China drains cash to curb inflation,"](#) *Financial Times*, Feb. 22, 2013.

V. INTEGRATION OF GOODS MARKETS

16. (10/29) PPP
Caves, Frankel and Jones, *WTP*, 2007, Chapter 19.2. ***
Alan Taylor and Mark Taylor, 2004, "The Purchasing Power Parity Debate," *Journal of Economic Perspectives*, 18, 4, 135-158, Fall. *
Kenneth Rogoff, 1996, "The Purchasing Power Parity Puzzle," *J.Ec.Lit.*, 34, 2, June, 647-68.
Camila Casas, Federico Diez, [Gita Gopinath](#), and Pierre-Olivier Gourinchas. 2017, "[Dominant Currency Paradigm](#)." [NBER WP 22943](#). [WP, August 2017](#).
17. (10/31) Barriers to integration
Andrew Rose, 2000, "One Money, One Market: Estimating the Effect of Common Currencies on Trade," *Economic Policy* vol.15, no.30, April. **
Charles Engel and John Rogers, 1996, "How Wide is the Border?" *Am.Ec.R.* 86, 5, Dec., 1112-25. *
Michael Mussa, 1986, "Nominal Exchange Rate Regimes and the Behavior of Real Exchange Rates: Evidence and Implications," *Carnegie Rochester Series on Public Policy* 25, 117-214.
18. (11/5) Nontraded goods and Balassa-Samuelson
["The Big Mac Index: Of Bucks and Burgers"](#), *The Economist*, July 15, 2017. **
Bela Balassa, 1964, "The Purchasing Power Parity Doctrine: A Reappraisal," *J. Polit. Econ.* 72, 584-96.
Jose De Gregorio, Alberto Giovannini, and Holger Wolf, 1994, "International Evidence on Tradables and Nontradables Inflation," *European Economic Review* 38, no. 6, June, 1225-44.

VI. SMALL OPEN ECONOMIES

19. (11/7) Devaluation in small open countries
Caves, Frankel and Jones, *World Trade and Payments*, Ch. 19.4 & Appendix 19.C. ***
Rudiger Dornbusch, 1973, "Devaluation, Money and Nontraded Goods," *Amer.Ec. R.*, Dec., 71-80. *
Ariel Burstein, Martin Eichenbaum, and Sergio Rebelo, 2005, "[Large Devaluations and the Real Exchange Rate](#)," *J. Political Economy* 113, no.4, August: 742-784. [NBER WP 10986](#). *
20. (11/14) The Salter-Swan Model
Caves, Frankel and Jones, *World Trade and Payments*, Chapter 20. ***
W.E.G. Salter, 1959, "Internal and External Balance – The Role of Price and Expenditure Effects," *Economic Record*, August.
Trevor Swan, 1963, "Longer Run Problems of the Balance of Payments," in H.W.Arndt & W.M.Corden, eds., *The Australian Economy* (Cheshire, Melbourne).
["Lira plunges as rates freeze raises fears over Erdogan's economic role"](#), *Financial Times*, July 25, 2018. **

21. (11/19) EM crises: Sudden stops, currency mismatches & contractionary devaluation

WTP, 2007, Ch. 24.1-24.2, 24.6-24.7 ***

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.

J. Frankel, 2005, "[Contractionary Currency Crashes in Developing Countries](#)," *IMF Staff Papers* 52, 2, 149-92.

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

"[Turkish currency sinks as Erdogan opens election bid](#)," *New York Times*, May 24, 2018. **

"[Emerging markets face a dollar double whammy](#)," Urjit Patel, *Fin. Times*, June 4, 2018. *

22. (11/26) Dutch Disease

Jeffrey Sachs, "How to Handle the Macroeconomics of Oil Wealth," Ch. 7 in *Escaping the Resource Curse*, M. Humphreys, J. Sachs & J. Stiglitz, eds. (Columbia Univ. Press) 2007, pp.173-193. ***

"[Peru's roaring economy: Hold on tight](#)," *The Economist*, Feb. 2, 2013.

22 ½ OPTIONAL LECTURE: The Natural Resource Curse & solutions

J. Frankel, 2012, "[The Natural Resource Curse: A Survey of Diagnoses and Some Prescriptions](#)," in [Commodity Price Volatility and Inclusive Growth in Low-Income Countries](#), edited by R. Arezki, C. Patillo, M. Quintyn & M. Zhu (International Monetary Fund: Washington DC). HKS [RWP12-014](#). [CID WP no.233](#), [April 2012](#). **

VII. EXCHANGE RATE REGIMES

23. (11/28) Classification; Pros and cons of fixed vs. floating Rates

J. Frankel, 2004, "[Experience of and Lessons from Exchange Rate Regimes in Emerging Economies](#)," in *Monetary and Financial Integration in East Asia*, Asian Development Bank (Palgrave Macmillan), vol.2, 91-138. [RWP03-011](#) and [NBER WP no.10032](#). **

Guillermo Calvo and Carmen Reinhart, "[Fear of Floating](#)," *QJE*, 117, 2, May, 379-408. *

Milton Friedman, 1953, "The Case for Flexible Exchange Rates," in *Essays in Positive Economics* (University of Chicago Press: Chicago), 157-203.

Kenneth Rogoff and Maurice Obstfeld, 1995, "The Mirage of Fixed Exchange Rates," *Journal of Economic Perspectives* 9, Fall, 73-96.

"[Petri-dish economies: Poland – Few woes in Warsaw](#)," *Economist*, April 30, 2011, p. 83. *

"[Fed and Federico: Why countries like Argentina and Turkey fret about their exchange rates](#)," *The Economist*, June 23, 2018.

24. (12/3) Optimum Currency Areas & Currency Unions

WTP, Chapter 26.5. ***

Robert Mundell, 1961, "A Theory of Optimum Currency Areas," *Am.Ec.Rev.*, Sept., 657-65. *

A.Ghosh, A.Gulde and H.Wolf, 2000, "Currency Boards -- More Than a Quick Fix?" *Economic Policy*, 31, Oct., 270-335.

Paul Krugman, 1991, "Target Zones and Exchange Rate Dynamics," *Quarterly J. Ec.* 106, 3, 669-82.

25. (12/5) More on EM currency crises: Contagion, the IMF, and early warning indicators

WTP, Chapter 24.3-24.5, 24.8-24.9

Graciela Kaminsky, Carmen Reinhart and Carlos Vegh, 2003, "The Unholy Trinity of Financial Contagion," *Journal of Economic Perspectives*, 17, no. 4, Fall, 99-118. *

J.Frankel, J., and G.Saravelos, 2012, "Are Leading Indicators Useful for Assessing Country Vulnerability? Evidence from the 2008-09 Global Financial Crisis," *J. Int. Ec.* 87, 216-31.

Summary, VoxEU. *

"Financial indulgence," *The Economist*, April 5, 2014, p.69.

"Economic epidemiology," *The Economist*, June 16, 2012.

"Emerging-market debt: A run for your money," *The Economist*, Aug.28, 2010, p.66.

"Asia's Great Moderation," *The Economist*, Nov. 10, 2012.

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

POSSIBLE OPTIONAL LECTURE: Macro Policy in China #2 (RMB policy & 2012-18 slowdown)

J.Frankel, 2015, "Congress, China, and Currency Manipulation," *China-US Focus*, vol.6, May, 36-38. **

Lant Pritchett and Larry Summers, 2014. "Asia-phoria meet regression to the mean," *AEPC Proceedings* (Federal Reserve Bank of San Francisco), Nov., pp. 1-35. [NBER WP 20573](#)

"China faces a tough test stabilizing the renminbi," *Financial Times*, July 5, 2018; and response letter, "A double standard for China's currency," Desmond Lachman, FT, July 11. **