Sept. 4, 2014

API-120: Advanced Macroeconomics for the Open Economy, Fall 2014

Harvard Kennedy School

Course Syllabus: prospectus, outline/schedule and readings

Staff: Professor: Jeffrey Frankel Littauer 217
Faculty Assistant: Minoo Ghoreishi Belfer 510A (617) 384-7329
Teaching Fellow: Maximilian Eber
Course Assistants: Kay Kim, Changgi Lee, and Tim O'Brien.

Times: Lectures: Mondays and Wednesdays, 2:40-4:00 pm, L230.[1]
Review Sessions: Fridays: 8:40-10:00 and 10:10-11:30 am, L230.[2]
Final exam: Monday, Dec. 15, 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 major overall 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 Dutch disease and financial crises, among other topics.

Nature of the approach: The course is built around analytical models. Although real-world examples will appear throughout, the course will rely very 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 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 Advance Macro 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 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 ITF220 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, international economics and statistics is presumed. Analytical tools that will be used include especially calculus; also some differential equations, probability, and multivariate regression analysis.

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1 1st two lectures: Wed. Sept.3 & Fri. Sept. 5.
2 Two exceptions to the normal section schedule:
- Sections on Fri., Sep 5th, are moved to Mon., Sep 8th , 4.10pm, instead (in Starr audtorium).
- Sections on Fri., Oct 10th , are moved to 1.10pm & 2.40pm on the same day (in Starr).

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

Problem Set	***tentative due date (11:30 a.m. in the MPA/ID drop box)***
1	Wednesday Sep.10
2	Wed., Sept. 17
3	Wed., Sept. 24
4	Wed., Oct. 8
5	Wed., Oct. 29
6	Wed., Nov. 12
7	Wed., Nov. 19
8	Wed., Dec. 3

For each problem set, each student must decide whether to work in a group or to do it on his or her own. Those who do it on their own (1) must not discuss any aspect of the problem set with any other student, (2) need to indicate below their name when they hand in the problem set that they did it on their own, and (3) will then receive a *small* bonus on the grade (one point). If you indicated that you did it on your own despite having discussed something with another student, that would be a violation of academic integrity. Read Academic Code: http://www.hks.harvard.edu/var/ezp_site/storage/fckeditor/file/pdfs/degree-programs/registrar/academic_code.pdf

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

Complete readings:

In short: Most of the course will be based on articles. (See reading list.)

For lectures 5-7, the text will be Chapter 10, "Inflation and Monetary Policy," of David Romer's *Advanced Macroeconomics* (McGraw Hill: New York), 4th edition, 2012. This is just one chapter, but Romer is the text for API119, Macro II, so most students will have to buy it anyway.

Textbooks for further background: Most students will have already studied basic and intermediate macroeconomics. The necessary pre-requisite background in macroeconomics at a basic level is represented by Greg Mankiw, *Macroeconomics*, 8th edition, Worth: NY, 2013.

Students will probably want to acquire *World Trade and Payments*, R. Caves, J. Frankel, and R. Jones (10th edition, Addison-Wesley Longman, 2007), especially those who have not previously taken a serious course in international economics. It is abbreviated *WTP* on the syllabus and will be referred to often in the course. At a considerably more advanced level, the recommended text is Maurice Obstfeld and Kenneth Rogoff, *Foundations of International Economics* (MIT Press, 1996).

Readings: The complete reading list is below and posted on the course website under "online materials." Required readings in this course (indicated with asterisks) should be available online. Please see the online reading list for full details about availability of readings and links to online readings.

Topics and schedule:

Tentative due dates:

I. DEVALUATION AND THE TRADE BALANCE

1. (9/3) Derivation of Marshall-Lerner condition; J-curve

II. THE MUNDELL-FLEMING MODEL

2. (9/5) Keynesian trade balance; TB empirics; Intro to Mundell-Fleming
3. (9/8) Monetary and fiscal policy with a fixed exchange rate; Reserve flows
4. (9/10) The model with a floating rate, perfect capital mobility; Impossible Trinity ___ PS 1 due

III. MONEY AND INFLATION

5. (9/15) Aggregate Supply, money growth and inflation
6. (9/17) Monetary policy: Dynamic inconsistency and rules ___ PS 2 due
7. (9/22) Seignorage and hyperinflation

IV. PURCHASING POWER PARITY

8. (9/24) Does PPP hold empirically? Deviations: patterns & speed of adjustment. ___ PS 3 due
9. (9/29) Why does PPP fail? Sticky prices; Tariffs & transp. costs; Nontraded goods

V. SMALL OPEN ECONOMIES

10. (10/1) Devaluation in small countries
11. (10/6) The Salter-Swan Model (nontraded goods)
12. (10/8) Dutch Disease ___ PS 4 due

[*10/13 Columbus Day holiday*]

VI. EXCHANGE RATE REGIMES

13. (10/15) Classification; Pros and Cons of Fixed vs. Floating Rates
14. (10/20) Optimum Currency Areas & Currency Unions
15. (10/22) ***MIDTERM EXAM***

VII. INTEGRATION OF FINANCIAL MARKETS

16. (10/27) The theory of gains from intertemporal trade
17. (10/29) The Lucas Paradox ___ PS 5 due
18. (11/3) Interest Rate Parity

VIII. MODELS OF EXCHANGE RATE DETERMINATION

19. (11/5) With flexible prices.
20. (11/10) With sticky prices: the overshooting model

IX. CRISES IN EMERGING MARKETS

21. (11/12) Speculative attack models ___ PS 6 due
22. (11/17) Warning indicators; Sudden stops; Contagion.

X. THE CARRY TRADE, RISK, AND PORTFOLIO DIVERSIFICATION

23. (11/19) Exchange rate forecasting and Forward rate bias
24. (11/24) Optimal portfolio diversification ___ PS 7 due

[*11/26-30 Thanksgiving Vacation*]

25. (12/1) Sovereign risk & debt dynamics
26. (12/3) Fiscal failures ___ PS 8 due

Monday, Dec 16, 2:00-5:00 pm ***FINAL EXAM***

API-120: Macroeconomic Policy Analysis I

Prof. Jeffrey A. Frankel
Harvard Kennedy School

READING ASSIGNMENTS

* = required reading, available online, when possible
** = required most strongly, available online, when possible
[ ] = background readings

1. DEVALUATION AND THE TRADE BALANCE

Caves, Frankel and Jones, *World Trade and Payments* (*WTP)*, 2007, Chapters 15-16. **
"A Weakening Currency Could Mean Strength for Turkish Exporters," *NY Times*, Apr. 11, 2014.

DERIVATION OF MARSHALL-LERNER CONDITION

WTP, 2007, 16 Supplement, pp. S43-S44.

J-CURVE AND EMPIRICAL ESTIMATES OF ELASTICITIES

Jaime Marquez, 2002, "Income and Price Effects of Asian Trade," in his *Estimating Trade Elasticities* (Kluwer, Boston), 91-102. **

M.Bussière, G.Callegari, F.Ghironi, G.Sestieri, & N.Yamano, 2013, "Estimating Trade Elasticities: Demand Composition and the Trade Collapse of 2008-2009," *American Economic Journal: Macroeconomics*, 5, no.3, July, pp. 118-51. NBER WP 17712. *VoxEU* Summary, 2012.

2. MONETARY & FISCAL POLICY UNDER INTERNATIONAL CAPITAL MOBILITY

MUNDELL-FLEMING MODEL UNDER FIXED RATES; FLOATING; & PERFECT CAPITAL MOBILITY

Caves, Frankel and Jones *WTP*, 2007, Chapters 19.1, 22 and 23. **
[For background: *WTP* Chapters 17.1-17.3 & 18. Also Romer, Chapter 6.1, or Blanchard-Fischer, 10.4.]

Robert Mundell, 1963, "Capital Mobility and Stabilization Policy under Fixed and Flexible Exchange Rates," *Canadian J Ec.& P.S.*, Nov.. Adapted in his *International Economics*, pp.250-62.
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. **

3. MONEY AND INFLATION

[Background on Aggregate Supply: *WTP*, Chapter 26.1-26.3; or Chapter 6.2-6.4 of David Romer's *Advanced Macroeconomics* (McGraw Hill: NY), 4rd edition, 2011.]

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

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 . *

"Argentina's inflation problem: The price of cooking the books," *The Economist*, Feb. 25, 2012, pp.47-48.

"China drains cash to curb inflation," *Financial Times*, Feb. 22, 2013.

INFLATION, MONEY GROWTH AND INTEREST RATES

Romer's *Advanced Macroeconomics*, Chapter 11.1-11.3 in 4th ed. (Chapter 10 in 3rd ed.) **

Rudiger Dornbusch & Stanley Fischer, 1993, "Moderate Inflation," *World Bank Econ.Rev.* **7,** 1, 1-44. *

THE DYNAMIC INCONSISTENCY OF LOW-INFLATION MONETARY POLICY; RULES

Romer's *Advanced Macroeconomics*, Chapters 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.

"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. *

J. Frankel, 2014, "Nominal GDP Targeting for Middle-Income Countries," *Central Bank Review*, vol.14, no.3,Sept. (Central Bank of the Republic of Turkey). HKS RWP 14-033.

SEIGNORAGE, INFLATION, AND HYPERINFLATION

WTP, Ch. 19. 3, p. 582. *

Romer's *Advanced Macroeconomics*, Chapter 11.9 **

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.

4. PURCHASING POWER PARITY

Caves, Frankel and Jones, *WTP*, 2001, Chapter 19. 2. **

Kenneth Rogoff, "The Purchasing Power Parity Puzzle, *J.Econ.Literature*, 34, 2, June 1996, 647-68. *

Alan Taylor and Mark Taylor, 2004, "The Purchasing Power Parity Debate," *Journal of Economic Perspectives*, 18, 4, 135-158, Fall. *

David Parsley and Shang-Jin Wei, 2007, "A Prism into the PPP Puzzles: The Micro-Foundations of Big Mac Real Exchange Rates," *Econ.Journal*, 117, no.523, 1336-56, Oct.. NBER WP No. 10074.

"The BigMac index: bunfight – Currency wars: the burgers verdict," *The Economist*, Feb.2, 2013. *

REAL EXCHANGE RATE VARIABILITY AND STICKY PRICES

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.

J. Frankel, 1990, "Zen and the Art of Modern Macroeconomics: The Search for Perfect Nothingness," in *Monetary Policy For a Volatile Global Economy*, W.Haraf & T.Willett, eds. (AEI). Reprinted in *On Exchange Rates*, MIT Press, 1993, pp. 173-181 & 380-81.

SLOW PASS-THROUGH TO IMPORT PRICES, AND PRICING TO MARKET

Rudiger Dornbusch, 1987, "Exchange Rates and Prices," *American Econ. Rev.*, 77, 1, March, 93-106.

TESTS OF INTEGRATION ACROSS BORDERS

Charles Engel & John Rogers, 1996, "How Wide is the Border?" *Am.EcR.* 86, 5, Dec., 1112-25. *

Andrew Rose, 2000, "One Money, One Market: Estimating the Effect of Common Currencies on Trade," *Economic Policy* vol.15, no.30, Apr.. **

NON-TRADED GOODS

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.

5. SMALL OPEN ECONOMIES

Caves, Frankel and Jones, *World Trade and Payments*, Ch. 19.4, Appendix 19.C, & Chapter 20. **

DEVALUATION IN SMALL COUNTRIES

Rudiger Dornbusch, 1973, "Devaluation, Money and Nontraded Goods," *American Economic Review*, 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. *

THE SALTER-SWAN ("NONTRADED GOODS") MODEL

Max Corden, 1994, "A Model of Balance of Payments Policy," in his *Economic Policy, Exchange Rates and the International Monetary System* (Oxford Univ. Press).

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).

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 University Press) 2007, pp.173-193. **

Jeffrey Frankel, "How Can Commodity Exporters Make Fiscal and Monetary Policy Less Procyclical?" in *Beyond the Curse: Policies to Harness the Power of Natural Resources*, R.Arezki, T.Gylfason & A.Sy, eds. (IMF, 2011). HKS RWP 11-015.

"Peru's roaring economy: Hold on tight," *The Economist*, Feb. 2, 2013.

6. EXCHANGE RATE REGIMES

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, 2004 (Palgrave Macmillan), vol.2, 91-138. RWP03-011 and NBER WP no.10032. *

WTP, Section 26.4-26.5.

FIXED VS. FLOATING RATES; OPTIMUM CURRENCY AREAS

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

Robert Mundell, 1961, "A Theory of Optimum Currency Areas," *Amer.Econ.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.

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

INTERMEDIATE REGIMES: BANDS, BASKETS, CRAWLS, AND ADJUSTABLE PEGS

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

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

John Williamson, 2001, "The Case for a Basket, Band and Crawl (BBC) Regime for East Asia," in D. Gruen & J.Simon, eds., *Future Directions for Monetary Policies in East Asia* (Res.Bk.Australia), 97-109.

7. INTEGRATION OF FINANCIAL MARKETS

"Policing the frontiers of finance – Is foreign capital a luxury that poor countries can live without?" [summary of Rodrik & Subramanian], *The Economist*, Apr. 12, 2008, p. 87 **

"Economics Focus: Capital Bonanzas," [summary of Reinhart & Reinhart] *The Economist*, Sept. 27, 2008, p. 92. **

"Capital controversy," *The Economist*, April 14, 2012, p.86. *

M Ayhan Kose, Eswar Prasad, Kenneth Rogoff, and Shang-Jin Wei, 2009. "Financial Globalization: A Reappraisal," *IMF Staff Papers* 56, 1, April, pp. 8-62.

Anton Korinek, 2011, "The New Economics of Prudential Capital Controls: A Research Agenda," *IMF Economic Review* 59, 523–561.

THE THEORY OF GAINS FROM INTERTEMPORAL TRADE

World Trade and Payments, 2007, Section 21. 5. **

Maurice Obstfeld and Kenneth Rogoff, *Foundations of International Macroeconomics*, Parts 1-4.

THE LUCAS PARADOX AND OTHER CAPITAL FLOW PUZZLES

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

E. Prasad, R.Rajan, and A.Subramanian, 2007, "The Paradox of Capital," *Finance & Development*, IMF, March, 44, no.1. *

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, pp.347-68.

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

Pierre-Olivier Gourinchas and Olivier Jeanne, 2013, Capital Flows to Developing Countries: The Allocation Puzzle," *Review of Economic Studies*. NBER WP 13602.

Martin Feldstein and Charles Horioka, 1980, "Domestic Saving and International Capital Flows," *Economic Journal* 90, pp.314-29.

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.

8. MONETARY MODELS OF EXCHANGE RATE DETERMINATION

WTP, 2007, Ch. 27, especially Supplement S51-S55. **
Mark Taylor, "The Economics of Exchange Rates," *Journal of Economic Literature* 33, 1 March 1995. *

FLEXIBLE-PRICE MODELS

Michael Mussa, "The Exchange Rate, the Balance of Payments, and Monetary and Fiscal Policy under a Regime of Controlled Floating, *Scandinavian J. of Econ.*78, May 1976, 229-48.
Robert Lucas, "Interest Rates and Currency Prices in a Two-country World," *Journal of Monetary Economics* 10, 3, 1982, 335-359.

STICKY-PRICE MODELS AND OVERSHOOTING

Rudiger Dornbusch, 1976, "Expectations and Exchange Rate Dynamics" *JPE*, 84, 1161-76. **
Kenneth Rogoff, "Dornbusch's Overshooting Model After 25 Years," The Mundell-Fleming Lecture, *IMF Staff Papers* 49, 2002. *

FORECASTING

Richard Meese and Kenneth Rogoff, "Empirical Exchange Rate Models of the Seventies: Do They Fit Out of Sample?" *Journal of International Economics*, 14, 1983, pp.3-24.
Ken Rogoff, 2008, "Comment on 'Exchange Rate Models are Not as Bad As You Think', by Engel, Mark & West," in *NBER Macroeconomics Annual 2007*, vol.22, edited by D.Acemoglu, K.Rogoff & M.Woodford (Chicago: University of Chicago Press), 443-452.

9. EMERGING MARKETS

WTP, 2007, Ch. 24.

THE OPENING OF EMERGING MARKETS; DETERMINANTS OF INFLOWS; COUNTRY RESPONSES

Guillermo Calvo, Leo Leiderman and Carmen Reinhart, "Inflows of Capital to Developing Countries in the 1990s," *Journal of Economic Perspectives*, 10, 2, Spring 1996, 123-139. **
J.Ostry, A.Ghosh, K.Habermeier, M.Chamon, M.Qureshi and D.Reinhardt, 2010, "Capital Inflows: The Role of Controls," *IMF Staff Position Note* 10/04, February. *
"Brazil's economy: Wild horses – A soaring currency…" *The Economist*, Apr.23, 2011.
"Financial indulgence," *The Economist*, April 5, 2014, p.69.

INTRO TO SPECULATIVE ATTACK MODELS: 1ST, 2ND AND 3RD GENERATION

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

CONTAGION

Graciela Kaminsky, Carmen Reinhart and Carlos Vegh, 2003, "The Unholy Trinity of Financial Contagion," *Journal of Economic Perspectives*, 17, no. 4, Fall, 99-118. *
Barry Eichengreen, Andy Rose and Charles Wyplosz, "Contagious Currency Crises," *Scandinavian Journal of Economics* 98, no. 4, 1996, 463-484.
"Economic epidemiology," *The Economist*, June 16, 2012.

CONTRACTIONARY EFFECTS OF DEVALUATION: WAGE INDEXATION & BALANCE SHEET EFFECT

Paul Krugman, "Balance Sheets, the Transfer Problem and Financial Crises," *International Finance and Financial Crises*, P. Isard, A. Razin and A. Rose, eds. (Kluwer Academic Publ.), 1999.
J.Frankel, 2005, "Contractionary Currency Crashes in Developing Countries," *IMF Staff Papers* 52, 2, 149-92.

EMERGING MARKETS COME OF AGE? (THE 2008-09 CRISIS)

S.Claessens, G.Dell'Ariccia, D.Igan, & L.Laeven, 2010, "Cross-country Experiences and Policy Implications from the Global Financial Crisis," *Economic Policy*, vol.25, no.62, April, 67–93.

J.Frankel & 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*.

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

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

"India on the brink: How India got its funk," *The Economist*, Aug. 24, 2013, p.12.

10. PORTFOLIO DIVERSIFICATION

WTP, Chapter 28. **

Karen Lewis, "Puzzles in International Financial Markets," in *Handbook of International Economics*, vol. 3, G. Grossman & K. Rogoff, eds., North Holland, 1995. *

CARRY TRADE: BIAS IN THE FORWARD EXCHANGE MARKET

Markus Brunnermeier, Stefan Nagel & Lasse Pedersen, 2009, "Carry Trades and Currency Crashes," *NBER Macro.Annual 2008, vol.23*, Acemoglu, Rogoff & Woodford, eds. NBER WP No. 14473.

Craig Burnside, Martin Eichenbaum & Sergio Rebelo, 2007. "The Returns to Currency Speculation in Emerging Markets," *American Econ. Rev.*, vol. 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.

Hanno Lustig & Adrien Verdelhan, 2011. "The Cross-Section of Foreign Currency Risk Premia and Consumption Growth Risk: Reply," *American Econ.Rev.*, vol.101, no.7, pp. 3477-3500, Dec. NBER WP 13812.

Lucio Sarno, 2005, "Viewpoint: Towards a Solution to the Puzzles in Exchange Rate Economics: Where Do We Stand?" *Canadian J. of Econ.*, 38(3): 673-708. Warwick BS WP 05-11.

CURRENCY RISK AND OPTIMAL PORTFOLIO DIVERSIFICATION

WTP, 10th ed. , pp. S55-S58. **

J. Frankel, 1993, "In Search of the Exchange Risk Premium: A Six-Currency Test Assuming Mean-Variance Optimization," in *On Exchange Rates*.

SOVEREIGN DEBT: COUNTRY RISK, SUPPLY OF DEBT TO BORROWERS & DEBT DYNAMICS

Carmen Reinhart, Vincent Reinhart, and Kenneth Rogoff, 2012, "Debt Overhangs, Past and Present," NBER WP 18015, April. Summary in NBER Digest, August 2012. **

Barry Eichengreen & Ashoka Mody, 2000, "Lending Booms, Reserves and the Sustainability of Short-Term Debt: Inferences from the Pricing of Syndicated Bank Loans," *J. Development Econ*.

WTP, 10th ed. , pp. S47-S48.

PROCYCLICAL FISCAL POLICY & FISCAL INSTITUTIONS

Adi Brender and Alan Drazen, "Political Budget Cycles in New Versus Established Democracies," *Journal of Monetary Economics*, 2005. NBER WP 10539.

J. Frankel, C. Végh & G. Vuletin, 2013, "On Graduation from Fiscal Procyclicality," *Journal of Development Economics* 100, no.1, Jan., 32-47. NBER WP 17619. Summary, *VoxEU*, 2011. *

"Chile's Economy: Cashing in the fruits of rigor," *The Economist*, Feb. 19, 2009. **

J. Frankel, 2013, "A Solution to Fiscal Procyclicality: The Structural Budget Institutions Pioneered by Chile," in *Fiscal Policy and Macroeconomic Performance*,, L.Céspedes & J.Galí, eds. Central Bank of Chile WP 604, (Spanish.) NBER WP 16945 Summarized in *FP* Transitions, 2012.