### **AEM 4545/ECON 3545**

## **International Finance and Macroeconomics**

## Fall 2020

## **Professor Eswar Prasad**

This course will examine the determinants of international capital flows and their consequences for growth and volatility. Basic analytical models in open economy macroeconomics and international finance, including those related to exchange rate dynamics, will be covered. The course will analyze the challenges created by rising global financial integration for monetary policy, financial regulation, and other policies. Emerging market perspectives on these issues will be emphasized, with a special focus on the economies of China and India. The course will also discuss growth prospects for emerging markets, the myriad domestic and external challenges that they face in sustaining high growth, and the implications for the world at large. One module will cover the implications of new financial technologies for central banking and international finance. *Students will be required to write an independent research paper*.

Prerequisites: Intermediate-level courses in macroeconomics, international

economics, and econometrics/statistics.

Lecture hours: Wednesdays, 11:30 a.m. – 1:55 p.m.

Malott Hall 228

Grading: Letter grade only (no S/U option). Grade will be based on

assignments, research paper, and class participation

Credits: 3

Teaching Assistants: Bineet Mishra (bm596)

Sharan Banerjee (sb2346)

TA Office Hours: Mishra: Tue, Thu 3:00–4:00 pm.

Banerjee: To be determined

Course Support: Laura Hufnagel (ljh255)

201 Warren Hall

Prof's Office Hours: By appointment (through Laura Hufnagel)

## **COURSE SCHEDULE**

Lecture 1: September 2 Lecture 2: September 9

Topic: Economic Growth, The New World Economic Order

World Bank Global Economic Prospects, June 2020: Chapters 1 and 3

Emerging Markets: Resilience and Growth Amidst Global Turmoil: Chapters 4-6.

Ahmed, Shaghil, 2017, "China's Footprints on the Global Economy," speech at the Second IMF and Federal Reserve Bank of Atlanta Workshop on China's Economy.

Bosworth, Barry, and Susan M. Collins, 2008, "Accounting for Growth: Comparing China and India," *Journal of Economic Perspectives*, Vol. 22:1, pp. 45-66.

"China's Economic Rise: History, Trends, Challenges, and Implications for the United States," Congressional Research Service Report, 2019.

Clark, Hunter, Maxim Pinkovskiy, and Xavier Sala-i-Martin, 2018, "China's GDP Growth May be Understated," *China Economic Review*, In Press.

Dynan, Karen, and Louise Sheiner, 2018, "GDP As a Measure of Economic Well-being," Hutchins Center Working Paper#43, Brookings Institution Report.

Gordon, James, and Poonam Gupta, 2004, "Understanding India's Services Revolution," IMF Working Paper No. 04/171.

Nie, Jun and Yandong Jia, 2017, "Has China's Growth Reached a Turning Point?," The Macro Bulletin, Federal Reserve Bank of Kansas City.

Kose, M. Ayhan, Franziska Ohnsorage, and Lei Sandy Ye, 2017, "Capital Slowdown," *Finance & Development*, Vol. 54:2, pp. 36-39.

Prasad, Eswar, 2009, "Is the Chinaese Growth Miracle Built to Last?" *China Economic Review*, Vol. 20:1, pp. 103-123.

Prasad, Eswar, 2011, "Rebalancing Growth in Asia," *International Finance*, Vol. 14:1, pp. 27-66.

We will have guest presentations about data resources available at Cornell to work on topics related to international finance and open economy macro. Some data issues (and potential pitfalls) will also be discussed.

Hands-on Training Session on Data Presentation Using Excel and Stata September 10-11, 7:30 – 9:00 pm

# Lecture 3: September 16

# **Topic: Balance of Payments, Exchange Rates**

The Dollar Trap: Chapter 5, pages 63-67. Chapter 4.

Callen, Timothy, 2007, "PPP Versus the Market: Which Weight Matters," *Finance and Development*, Vol. 44:1.

Catao, Luis, 2007, "Why Real Exchange Rates," *Finance and Development*, Vol. 44:3, pp. 46-47.

Engel, Charles, and John H. Rogers, 1996, "How Wide is the Border?" *The American Economic Review*, Vol. 86:5, pp. 1112-1125.

Mankiw, Gregory, N., 2002, *Macroeconomics*, fifth edition, Worth Publishers. Section 5.3, pp. 127-141. [On reserve at the library]

Pakko, Michael R., and Patricia S. Pollard, 1996, "For Here or To Go? Purchasing Power Parity and the Big Mac," Federal Reserve Bank of St. Louis *Review*, Vol. 78(1), pp. 3-22

# Lecture 4: September 23

# **Topic: Monetary Policy, Exchange Rate Regimes**

"A Day in the Life of the FOMC: An Inside Look at the Federal Reserve's Monetary Policymaking Body," Blog, Federal Reserve Bank of Philadelphia.

Goodfriend, Marvin, and Eswar Prasad, 2007, "A Framework for Independent Monetary Policy in China," *CESifo Economic Studies*, Vol. 53:1, pp. 2-41.

Labonte, Marc, 2020, "Monetary Policy and the Federal Reserve: Current Policy and Conditions," Congressional Research Service Report.

Lubik, Thomas A., and Christian Matthes, 2015, "Calculating the Natural Rate of Interest: A Comparison of Two Alternative Approaches," FRB Richmond Economic Brief 15-10 (October).

Prasad, Eswar, 2010, "After the Fall: Central Banking in the Aftermath of the Financial Crisis," *Finance & Development*, Vol. 47:2, pp. 22-26.

Rule, Garreth, 2015, "Understanding the Central Bank Balance Sheet", Handbook No. 32, Centre for Central Banking Studies.

Summers, Lawrence H., 2016, "The Age of Secular Stagnation," Foreign Affairs, Vol. 95:2.

Williams, John C., 2017, "Three Questions on R-star," FRBSF Economic Letter, Federal Reserve Bank of San Francisco.

Bernanke, Ben S., 2020, "The New Tools of Monetary Policy," American Economic Review, Vol. 110:4, pp. 943-83.

## Lecture 5: September 30

**Topic: Capital Controls, Capital Account Liberalization** 

The Dollar Trap: Chapters 3, 4, 10.

Abraham, Facundo, and Sergio L. Schmukler, 2017, "Financial Globalization: A Glass Half Empty?" World Bank Policy Research Working Paper No. 8194

Kose, Ayhan, and Eswar Prasad, 2004, "Liberalizing Capital," *Finance and Development*, Vol. 41:3, pp. 50-51.

Kose, Ayhan M., Eswar Prasad, Kenneth Rogoff, and Shang-Jin Wei, 2007, "Financial Globalization: Beyond the Blame Game," *Finance and Development*, Vol. 44:1, pp. 9-13.

Lane, Philip R., and Gian Maria Milesi-Ferretti, 2018, "The External Wealth of Nations Revisited: International Financial Integration in the Aftermath of Global Financial Crisis," *IMF Economic Review*, Vol. 66:1, pp. 189-222.

Lund, Susan and Phillip Harle, 2017, "Global Finance Resets," *Finance and Development*, Vol. 54:4.

"The New Dynamics of Financial Globalization," McKinsey Institute Report, 2017.

McCauley, Robert N., Agustín S. Bénétrix, Patrick McGuire, and Goetz von Peter, 2017, "Financial Deglobalization in Banking?" Bank for International Settlements Working Paper No. 650.

Rey, Hélène, 2014, "Capital Account Management," in *What Have We Learned?*: *Macroeconomic Policy After the Crisis* edited by George Akerlof, Olivier Blanchard, David Romer and Joseph Stiglitz, MIT Press, Spring 2014: 307-314.

Rodrik, Dani, 1998, "Who Needs Capital-Account Convertibility?" Essays in International Finance, No. 207 (Princeton, NJ: Princeton University Press).

Stiglitz, Joseph, 2004, "Capital-Market Liberalization, Globalization, and the IMF," *Oxford Review of Economic Policy*, Vol. 20:1, pp. 57–71.

## Lecture 6: October 7

Topic: Currency Wars, Monetary Policy Spillovers, and Global Governance

The Dollar Trap: Chapters 7-9, 11

Ahmed, Shaghil, Brahima Coulibaly, and Andrei Zlate, 2017, "International Financial Spillovers to Emerging Market Economies: How Important are Economic Fundamentals?" *Journal of International Money and Finance*, Vol. 76, pp. 133-152.

Eichengreen, Barry, and Poonam Gupta, 2015, "Tapering Talk: The Impact of Expectations of Reduced Federal Reserve Security Purchases on Emerging Markets," *Emerging Markets Review*, pp. 1-15.

Mishra, Prachi, Papa N'Diaye, and Lam Nguyen, 2018, "Effects of Fed Announcements on Emerging Markets: What Determines Financial Markets' Reactions?" *IMF Economic Review*, Vol. 66:4, pp. 732-762.

Rai, Vikram, and Lena Suchanek, 2014, "The Effect of the Federal Reserve's Tapering Announcements on Emerging Markets," Bank of Canada Working Paper No. 2014-50.

# October 14 Break Day

### Lecture 7: October 21

**Topic: Finance and its Role in Growth** 

Agarwal, Isha, and Eswar Prasad, 2018, "A Vision and Action Plan for Financial Sector Development and Reforms in India," Brookings India IMPACT Series No. 021018.

Allen, Franklin, Jun, Qian, and Meijun Qian, 2005, "Law, Finance, and Economic Growth in China," *Journal of Financial Economics*, Vol. 77, pp. 57-116.

Bodenhorn, Howard, 2016, "Two Centuries of Finance and Growth in the United States, 1790-1980," NBER Working Paper No. 22652.

Barajas, Adolfo, Martin Cihak, and Ratna Sahay, 2017, "A Broader Reach," *Finance & Development*, Vol. 54:1, pp 34-36.

Cerutti, Eugenio, and Maurice Obstfeld, 2019, "China's Bond Market and Global Financial Markets," in *The Future of China's Bond Market* edited by Alfred Schipke, Markus Rodlauer, and Longmei Zhang, IMF, March 2019: Chapter 2.

Chamon, Marcos, and Eswar Prasad, 2010, "Why are Saving Rates of Urban Households in China Rising?" *American Economic Journal – Macroeconomics*, Vol.2:1, pp. 93-130.

Debt and (Not Much) Deleveraging, McKinsey Report, 2015.

Dobson, Wendy, and Anil Kashyap, 2006, "The Contradiction in China's Gradualist Banking Reforms," *Brookings Papers on Economic Activity*, pp. 103-148.

Loayza, Norman, Amine Ouazad, and Romain Ranciere, 2018, "Financial Development, Growth, and Crisis: Is There a Trade-Off?" NBER Working Papers 24474.

Prasad, Eswar, and Raghuram Rajan, 2008, "Next Generation Financial Reforms for India," *Finance and Development*, Vol. 45:3, pp. 23-27.

### Lecture 8: October 28

**Topic: International Transmission of Business Cycles and Financial Cycles** 

Emerging Markets: Resilience and Growth Amidst Global Turmoil: Chapters 8-9.

Kalemli-Ozcan, Sebnem, Elias Papaioannou, and Fabrizio Perri, 2013, "Global Banks and Crisis Transmission," *Journal of International Economics*, Vol. 89:2, pp:495-510.

Kose, M. Ayhan, Christopher Otrok, and Eswar Prasad, 2008, "How Much Decoupling? How Much Converging?" *Finance and Development*, Vol. 45:2.

Obstfeld Maurice, Jonathan D. Ostry, and Mahvash S. Qureshi, 2018, "Global Financial Cycles and the Exchange Rate Regime: A Perspective from Emerging Markets," *AEA Papers and Proceedings*, 108:499-504

Rey, Hélène, 2013, "Dilemma Not Trilemma: The Global Financial Cycle and Monetary Policy Independence," *Proceedings - Economic Policy Symposium - Jackson Hole*, Federal Reserve of Kansas City Economic Symposium, pp. 285-333.

Barajas, Adolfo, Ralph Chami, Christian H Ebeke, and Sampawende J Tapsoba, 2012, "Workers' Remittances; An Overlooked Channel of International Business Cycle Transmission?," IMF Working Paper No. 12/251.

Boz, Emine and Linda Tesar, 2019, "The Global Financial Cycle," *IMF Economic Review*, Vol. 67:1, pp. 1-3.

Jordà, Òscar, Moritz Schularick, Alan M. Taylor, and Felix Ward, 2019, "Global Financial Cycles and Risk Premiums," *IMF Economic Review*, Vol. 67:1, pp. 109-150.

Special Evening Sessions for Proposal Presentations October 29-30, 7:30-10:00 p.m.

Lecture 9: November 4

**Topic: The Battle Among Reserve Currencies** 

The Dollar Trap: Chapters 12-15. Gaining Currency: Chapters 2, 5-6.

Kroeber, Arthur, 2011, "The Chinese Yuan Grows up Slowly: Fact and Fiction about China's Currency Internationalization," Policy Paper. Washington: New America Foundation.

Lardy, Nicholas, and Patrick Douglass, 2011, "Capital Account Liberalization and the Role of the Renminbi," *China's New Role in the World Economy*, pp. 165-182.

Prasad, Eswar, 2017, "A Middle Ground," Finance & Development, Vol. 54:1, pp. 30-33.

Yu, Yongding, 2012, "Revisiting the Internationalization of the Yuan," ADBI Working Paper No. 366.

Prasad, Eswar and Lei Ye, 2013, "The Renminbi's Prospects as a Global Reserve Currency," *Cato Journal*, Vol. 33:3, pp. 563-570.

Chey, Hyoung-kyu, 2013, "Can the Renminbi Rise as a Global Currency?: The Political Economy of Currency Internationalization," *Asian Survey*, Vol. 53:2, pp. 348–368.

Brummer, Chris, 2017, "The Renminbi and Systemic Risk," *Journal of International Economic Law*, Vol. 20:3, pp. 447–507.

Eichengreen, Barry and Domenico Lombardi, 2017, "RMBI or RMBR? Is the Renminbi Destined to Become a Global or Regional Currency?" *Asian Economic Papers*, MIT Press, Vol. 16: 1, pp. 35-59.

Prasad, Eswar, 2018, "The Slow, Uneven, Rise of the Renminbi," *Cato Journal*, Vol. 38:2.

Lloyd, Colin, 2019, "U.S. Dollar Supremacy Could Quickly Fade," *American Institute for Economic Research Article*.

# Lecture 10: November 11 Topic: Prospects for the World Economy

Adler, Gustavo, and Romain Duval, 2017, "Stuck in a Rut," *Finance & Development*, Vol. 54:1, pp. 10-13.

Crafts, Nicholas, 2017, "Whither Economic Growth," *Finance & Development*, Vol. 54:1, pp. 1-6.

James, Harold, 2017, "Bretton Woods to Brexit," *Finance & Development*, Vol. 54:3, pp. 4-9

Prasad, Eswar, 2009, "Is China's Growth Miracle Built to Last?" *China Economic Review*, Vol. 20:1, pp. 103-123.

Prasad, Eswar, 2017, "Path to Influence," Finance & Development, Vol. 54:3, pp. 22-25

Pritchett, Lant, and Lawrence H. Summers, 2014, "Asiaphoria Meets Regression to the Mean," NBER Working Paper No. 20573.

Gordon, Robert J., 2016, "Off its Pinnacle: Is the United States entering a period of sustained low economic growth?," *Finance & Development*, Vol. 53:2, pp. 33-37.

Kose, M. Ayhan, Franziska Ohnsorge, and Naotaka Sugawara, 2019, "The Growth Forecast Puzzle," *Finance & Development*, Vol. 56:1, pp. 52-55.

"Global Outlook: Weak Momentum, Heightened Risks," in *Global Economic Prospects: Heightened Tensions, Subdued Investment*, A World Bank Group Flagship Report, June 2019: Chapter 1.

"Still Sluggish Global Growth", World Economic Outlook Reports, July 2019.

November 18 Semifinal Exam Holiday

November 25 Thanksgiving Holiday

### **Lecture 11: December 2 (Online)**

**Topic:** New Financial Technologies I -- Implications for Finance

Adriano, Andreas, 2018, "A Short History of Crypto Euphoria," *Finance & Development*, Vol. 55:2, pp. 20-21.

Benos, Evangelos, Rodney Garratt, and Pedro Gurrola-Perez, 2017, "The Economics of Distributed Ledger Technology for Securities Settlement," Bank of England Working Paper No. 670.

James, Harold, 2018, "Lucre's Allure," Finance & Development, Vol. 55:2, pp. 17-19.

Nakamoto, Satoshi, 2008, "Bitcoin: A Peer-to-Peer Electronic Cash System," https://bitcoin.org/bitcoin.pdf

Schilling, Linda, and Harald Uhlig, 2019, "Some Simple Bitcoin Economics," *Journal of Monetary Economics*, Pages 16-26.

# **Lecture 12: December 9 (Online)**

## Topic: New Financial Technologies II -- Implications for Central Banking

Agustín, Carstens, 2018, "Money in the Digital Age: What Role for Central Banks," Bank for International Settlements Speech.

9

Bech, Morten, and Rodney Garratt, 2017, "Central Bank Cryptocurrencies," *Bank for International Settlements Quarterly Review*, pp. 55–70.

Committee on Payments and Market Infrastructures, 2015, "Digital Currencies," *Bank for International Settlements Publication*.

Committee on Payments and Market Infrastructures, 2018, "Central Bank Digital Currencies," *Bank for International Settlements Publication*.

Engert, Walter, and Ben S.C. Fung, 2017, "Central Bank Digital Currency: Motivations and Implications," Bank of Canada Staff Discussion Paper No. 2017-16.

Fung, S.C. Ben, and Hanna Halaburda, 2016, "Central Bank Digital Currencies: A Framework for Assessing Why and How," Bank of Canada Staff Discussion Paper No. 2016-22.

Ingves, Stefan, 2018, "Going Cashless," Finance & Development, Vol. 55:2, pp. 11-12

Prasad, Eswar, 2018, "Central Banking in a Digital Age: Stock-Taking and Preliminary Thoughts," Brookings Institution Report.

Schnabel, Isabel, and Hyun Song Shin, 2018, "Money and Trust: Lessons from the 1620s for Money in the Digital Age," Bank for International Settlements Working Paper No. 698.

Lagarde, Christine, 2018, "A Regulatory Approach to Fintech," *Finance & Development*, Vol. 55:2, pp. 9-10.

Andolfatto, David, 2018, "Assessing the Impact of Central Bank Digital Currency on Private Banks," Working Paper No. 2018-26B, Federal Reserve Bank of St. Louis.

Griffoli, Tommaso Mancini, Maria Soledad Martinez Peria, Itai Agur, Anil Ari, John Kiff, Adina Popescu, and Celine Rochon, 2018, "Casting Light on Central Bank Digital Currencies," Staff Discussion Notes No. 18/08, IMF.

"An Introduction to Libra," White Paper, Libra Association, 2019.

Allen, Sarah, Srdjan Capkun, Ittay Eyal, Giulia Fanti, Bryan Ford, James Grimmelmann, Ari Juels, Kari Kostiainen, Sarah Meiklejohn, Andrew Miller, Eswar Prasad, Karl Wüst, and Fan Zhang, 2020, "Design Choices for Central Bank Digital Currency: Policy and Technical Considerations," NBER Working Paper No. 27634.

## BACKGROUND READINGS & REFERENCE MATERIALS

## **REQUIRED:**

Gaining Currency: The Rise of the Renminbi, Eswar Prasad, Oxford University Press, October 2016.

The Dollar Trap: How the U.S. Dollar Tightened its Grip on Global Finance, Eswar Prasad, Princeton University Press, 2014.

#### **RECOMMENDED:**

China's Efforts to Expand the International Use of the Renminbi, Eswar Prasad, Brookings Institution Report, February 2016.

Collapse and Revival: Understanding Global Recessions and Recoveries, M. Ayhan Kose and Marco Terrones, 2015.

**Dealing with China**, Henry M. Paulson, Twelve (Hachette Group), 2015.

Emerging Markets: Resilience and Growth Amidst Global Turmoil, M. Ayhan Kose and Eswar Prasad, Brookings Institution Press, 2010.

Markets Over Mao: The Rise of Private Business in China, Nicholas R. Lardy, Peterson Institute Press, 2014.

**An Uncertain Glory,** Amartya Sen and Jean Dreze, Allen Lane, 2013.

Why Growth Matters: How Economic Growth in India Reduced Poverty and the Lessons for Other Developing Countries, Jagdish Bhagwati and Arvind Panagariya, Public Affairs, 2013.

## SUGGESTED FOR BROADER PERSPECTIVES:

India After Gandhi: The History of the World's Largest Democracy, Ramachandra Guha, HarperCollins, 2007.

On China, Henry Kissinger, Penguin Books, 2012 (original edition, 2011).

**Dealing with China: An Insider Unmasks the New Superpower**, Henry M. Paulson, Jr., Hachette Book Group, 2016 (original edition, 2015)

**Destined for War: Can America and China Escape Thucydides's Trap?,** Graham Allison, Houghton Mifflin Harcourt, 2017

## COURSE ASSIGNMENTS AND REQUIREMENTS

## **Common Points about Formatting, Submission of Assignments**

- 1. All text double-spaced (except footnotes and references to be single-spaced).
- 2. Use Times New Roman 12-point font or other font with similar size (important: assignments with smaller font size won't be accepted), at least 1" margins on all sides.
- 3. Follow formatting instructions for tables and figures.
- 4. Put on the subject line "4545: Assignment I" or whatever the relevant document is.
- 5. Email documents in pdf format to Bineet Mishra (bm596).
- 6. Put your name at the top right corner on front page of each assignment.

### **Indicative Grade Allocation**

Assignment I (Macro Data: Basic): 5 percent
Assignment II (GDP Comparisons): 5 percent
Assignment III (Trade, Exchange Rate): 5 percent
Assignment IV (Capital Flows): 5 percent
Assignment V (Critique of News Article): 5 percent

[Top four grades of assignments I-V will be used to determine final grade (20 percent)]

Assignment VI (Data Note): 10 percent Assignment VII (Research Note): 15 percent

Assignments VIII-X (Research Proposal, First Draft, Final Draft):

50 percent (10+15+25)

Class Participation: 5 percent

## **Assignment Schedule**

Number	Description	Handed out	Due date / time
I.	Macro Data: Basic	Sept. 2	Sept. 7 / 10 a.m.
II.	GDP Comparisons	Sept. 9	Sept. 14 / 10 a.m.
[Hands-on Training Sessions on Excel, Stata, Sept. 10-11, 7:30–9:00 pm]			
III.	Trade, Exchange Rate	Sept. 16	Sept. 21 / 10 a.m.
IV.	Interest Rates	Sept. 23	Sept. 28 / 10 a.m.
V.	News Note	Sept. 30	Oct. 5 / 10 a.m.
VI.	Data Note	Oct. 7	Oct. 12/10 a.m.
VII.	Research Note	Oct. 7	Oct. 19 / 10 a.m.
VIII.	Research Proposal	Oct. 21	Nov. 2 / 10 a.m.
[Special sessions on Oct. 29-30 @ 7:30-10:00 p.m. to present proposals]			
IX.	First Draft	Nov. 4	Nov. 20 / 10 a.m.
X.	Final Draft	Nov. 11	Dec. 17 / 10 a.m.