

**Economics 4520**  
**International Finance**  
*Open Economy Macroeconomics for a Turbulent World*  
Spring 2024, Tue./Thur. 3:30-5:00PM, **Room: PCPSE 625**  
(note the classroom is not MCNB 309 as posted at [courses.upenn.edu](https://courses.upenn.edu))

**Prerequisites**

ECON 2100 (Int. Micro Theory) **and** 2200 (Int. Macro Theory), **and either** MATH 1400 (Calculus 1) and 1410 (Calculus 2) **or** MATH 1070 (Mathematics of Change 1) and MATH 1080 (Mathematics of Change 2). Wharton students and students enrolled in the Huntsman Program in International Studies & Business can use BEPP 2500 HONORS to fulfill the ECON 2100 prerequisite (the regular BEPP 2500 course does not count as a substitute).

Guest students visiting Penn must email Prof. Mendoza with information on the courses that would match the prerequisites (institution where taken, course names, textbooks, grades, etc.) and obtain written permission to register.

The course does require the skills acquired in the pre-requisite courses, including intermediate Micro and Macro, algebra, and multivariate calculus (constrained optimization in particular). This is a highly analytic course for which students are expected to be proficient in the use of mathematics in macroeconomic analysis.

**Teaching Assistant**

Germán Sánchez ([germansa@sas.upenn.edu](mailto:germansa@sas.upenn.edu)), office hours: Mon./Tue. 11:00am-12:00pm

**Course description**

A formal study of International Finance and Open Economy Macroeconomics with emphasis on financial crises and policy responses. Topics covered include macroeconomic equilibrium in open economies with and without money, theories of current account and exchange rate determination, the effects of exchange rate adjustments, macroeconomic policy under fixed and floating exchange rates, currency crises, financial crashes and contagion. We use these theoretical foundations to examine financial crises that have affected advanced and emerging economies since the mid-1990s, the “global imbalances” phenomenon characterized by the large external deficits of the United States since the late 1990s, the 2008 Global Financial Crisis, the 2010 European debt crisis, and the ongoing crises in Argentina and several developing countries in China’s Belt and Road Initiative. Preparation of a policy essay and discussions of current international policy issues are also part of the curriculum.

The foundations of International Macroeconomics are covered using class notes and other material available in the Canvas site for this course. The objective is to build an analytic foundation for the preparation of the policy essay and for understanding and debating key macro issues in the world economy. We examine alternative hypotheses about the costs and benefits of financial globalization, and the causes and dynamics of financial crises and alternative proposals for dealing with them. These include issues related to capital-market imperfections, fiscal, monetary and exchange-rate policies, and cross-country contagion of crises. The course also examines the challenges financial crises pose to governments and international organizations.

### **Office hours**

Wednesday, 2:00PM-3:15PM, Room 538 PCPSE

### **Grading**

In-class mid-term exam 30% (**set for Tuesday, March 26, 2024**), policy essay 30% (final version **due April 30, 2024**), three problem sets 30% (due **Feb. 6, Feb. 22 and March 21**), and class attendance and participation 10%.

### **Policy Essay**

The policy essay is an exercise in researching and writing a policy or action paper similar to those used to guide decisions in financial institutions, government agencies and international organizations. The essay will focus on the experience of one of the countries that has gone through a financial crisis since the 1990s. Each essay will be written jointly by two students and must be divided into three parts:

*Part 1:* Document key facts of the country's crisis using macroeconomic data.

*Part 2:* Present a diagnosis (i.e., an analysis of the causes and consequences of the crisis).

*Part 3:* Propose policy recommendations to deal with the crisis.

The analysis in parts 2 and 3 must be explicitly based on the analytic principles studied in the course and on readings about the particular country and other reference material. Parts 2 and 3 must present opposing views of the crisis: A "domestic" perspective from the viewpoint of the government, or the domestic banks, or the unions, etc., and a "foreign" perspective from the viewpoint of the IMF, or "Wall Street", or the U.S. government, etc. One author of each pair will choose one of the opposing views, and the two authors should meet to discuss their viewpoints, expose them in Part 2, and articulate their positions in Part 3.

Authors will choose the country and view for their essay by **signing up** (first-come, first-served) on a list posted in my office door during the first month of the course. Each essay must be a **maximum of 10 double-spaced pages in a standard 12 point font with 1 inch margins** (*including cover page, main text, and all figures and tables*). A one-page proposal outlining the structure and contents of the essay must be submitted by **Feb. 29, 2024**. *Only papers with an approved proposal will be graded.* The final version of the paper is due **April 30, 2024**.

### **Etiquette and Ethics:**

- (a) **Use of course proprietary materials and internet sites:** The midterm exam, problem sets, answer keys, class notes, policy essays and any other material created for this class are copyrighted and are not to be shared with anyone, either electronically or by other means. Internet uploads/downloads of course materials is prohibited (e.g., to/from sites like Course Hero, Chegg and Bartleby). Use of AI apps like ChatGPT is also prohibited.
- (b) **Classroom:** Attendance is required and full adherence to Penn's **Code of Academic Integrity** is expected. 5 mins. maximum tolerance for late arrivals. Laptops and tablets for taking notes are allowed, cellphones should be silenced and put away during class.

## **Canvas Site, Video Material & Reference Book**

**Canvas site:** <https://canvas.upenn.edu/courses/1740851> Navigate through the various pages to find the class notes, course materials, problem sets, and announcements.

**Class notes:** Access in Canvas at <https://canvas.upenn.edu/courses/1740851/pages/class-notes>

**Video material:** Links included in Canvas pages provide access to informative documentaries related to the topics covered in class

### ***Commanding Heights, Episode 3-The New Rules of the Game***

Commanding Heights is one of the best documentaries on the globalization phenomenon during the 1990-2001 period. It is based on the 2002 book "The Commanding Heights" by Daniel Yergin and Joseph Stanislaw. The documentary has three episodes. This course will cover the third episode ("The New Rules of the Game"), split into 23 "chapter" video clips distributed over three Canvas pages. We will discuss one chapter at the beginning of each class. This material deals with the origins, promise and challenges of globalization, covering international trade and finance, political and social links and the economic and political instability associated with the early years of the globalization era.

### ***Additional video material***

Links provided in other Canvas pages point to useful documentaries on globalization and financial crises, including the 2008 U.S. and Global Financial Crisis, the 2011 European Debt Crisis and China's Belt and Road Initiative.

### **Reference Book: *Macroeconomics in the Global Economy* by J. Sachs and F. Larrain (S&L)**

Part of my class notes follow this book, but the notes are self-contained so that the book is not required. Starting with the analysis of money, my class notes differ from the book significantly. Purchasing the book is not required. The book is out of print but can be found at low-cost resale (e.g., in Amazon, ebay) and possibly in free pdf download sites.

## **Course Outline**

### **1 Introduction: Financial Globalization and Global Imbalances (Promises & Facts)**

(Presentation slides)

- A. Historical perspective on financial globalization
- B. Stylized facts of global imbalances
- C. The case for globalization v. the outcomes of globalization

### **2 Macroeconomic equilibrium in a small open economy without money**

(Class notes, S&L Chs. 4-7)

- A. The Households Saving Decision
- B. The Firms Investment-Output Decisions
- C. The Current Account
- D. The Government Sector

### 3 **Equilibrium in the Small Open Economy with Money**

(Class notes, S&L Chs. 8-11)

- A. Interest Rates and Prices in a Monetary Economy
- B. Money and the Households Budget Constraint
- C. The Demand for Money: A Transactions Costs Approach
- D. The Money Supply Process
- E. Money Supply and the Consolidated Government Budget Constraint
- F. Equilibrium in the Money Market
- G. Money, Exchange Rates and Prices

### 4 **Inflation, Unsustainable Policies and Balance-of-Payments Crises**

(Class notes, S&L Ch. 12)

- A. Government Deficits and Inflation
- B. Balance-of-Payments Crises: The Collapse of Fixed Exchange Rates
- C. The Inflation Tax and Seigniorage

### 5 **Sustainable Exchange Rates and Currency Crises in General Equilibrium**

(Class notes)

- A. Sustainable fixed exchange rates in general equilibrium
- B. Balance-of-Payments Crises in general equilibrium
- C. Effects of a temporary currency peg

### 6 **Financial Amplification and Public Debt in Global Financial Crises**

(Presentation slides, *Rev. of Econ. Dyn.* 2020, *Handbook of Macro Chapter 2016*, *Manchester School 2017*)

- A. Stylized facts of Credit Booms and Sudden Stops
- B. Borrowing Constraints and Fisherian Amplification
- C. Macroprudential financial regulation
- D. Public debt sustainability (the debt Crisis of the United States)

#### **Additional video material**

“House of Cards” (Not the Netflix show, but an entertaining/informative CNBC documentary about the U.S. housing crash, for sale in AppleTV under CNBC Originals)

“Too Big to Fail” (Nice account of the U.S. crisis in 2008-09, HBO movie based on Andrew Sorkin’s book, <https://www.hbo.com/movies/too-big-to-fail>)

“The Big Short” (Movie providing a nice account of the period leading up to the U.S. 2008 crash, based on the book by Michael Lewis, available in Netflix)

#### **Selected Optional Readings for Policy Essays**

David Driscoll, “What Is the International Monetary Fund?” Revised September 1998, Paul Krugman, “The Confidence Game,” *New Republic*, October 5, 1998.

Jeffrey Sachs, “Global Capitalism: Making it Work,” *Economist*; and “IMF is a Power Unto Itself,” *NY Times*, December 11, 1997.

Enrique Mendoza, “Why Should Emerging Economies Give Up National Currencies: A Case for ‘Institutions Substitution’,” NBER WP 8950, 2002, Nat. Bureau of Economic Research.

IMF, "A Guide to Progress in Strengthening the Architecture of the International Financial System," April 28, 1999.

Barry Eichengreen, Toward a New International Financial Architecture: A Practical Post-Asia Agenda (Institute for International Economics, 1999).

Robert E. Rubin, "Reform of the International Financial Architecture: Weighing Risks", *Vital Speeches of the Day*, New York, May 15, 1999, 65(5), pg. 445.

Martin Feldstein, "A Self-Help Guide for Emerging Markets," Foreign Affairs 78, No. 2 (March/April, 1999), pp. 93-110.

Barry Eichengreen and Michael Mussa, "Capital Account Liberalization and the IMF," Finance and Development (December 1998).

IMF, Chapter IV: Exchange Rate Arrangements and Economic Performance in Developing Countries, *World Economic Outlook* 1997.

IMF, *World Economic Outlook: International Financial Contagion*, May 1999

IMF, *World Economic Outlook and International Capital Markets: Interim Assessment*, December 1998.

Timothy Lane, *et al.* IMF-Supported Programs in Indonesia, Korea, and Thailand: A Preliminary Assessment, at <http://www.imf.org/external/pubs/ft/op/op178/index.htm>

I. Fisher, "The Debt-Deflation Theory of Great Depressions," *Econometrica*, 1933

J. Sachs and S. Radelet, "The East Asian Financial Crisis: Diagnosis, Remedies, Prospects," *Brookings Papers on Economic Activity*, 1998(1), pp. 1 – 74; "On their feet again", *The Economist*, August 21, 1999.

G. Calvo, "The Russian Virus: Contagion When Wall Street is the Carrier", 1999.

G. Calvo and E. Mendoza, "Globalization, Contagion, and the Volatility of Capital Flows", in Capital Inflows to Emerging Markets, ed. by S. Edwards, NBER, Cambridge MA 1999

G. Calvo and E. Mendoza, "Petty Crime and Cruel Punishment: Lessons from the Mexican Debacle," American Economic Review, Papers & Proceedings, May 1996.

Paul Krugman, The Return of Depression Economics, Norton, 1999, Chapter 9.

Paul Krugman, "Saving Asia: It's Time to Get Radical," Fortune, September 1998.

Michael Lewis, The Big Short, Norton 2010

Carmen Reinhart and Kenneth Rogoff, This Time Is Different: Eight Centuries of Financial Folly, Princeton U. Press, 2011

Nicolas Dunbar, *Inventing Money*, Wiley, 2000.