Johns Hopkins University  
Krieger School of Arts and Sciences  
Master of Science in Applied Economics Program  
Syllabus for International Finance (Open Economy Macroeconomics): Spring 2015

Professor: Brendan Epstein, Ph.D.  
Email: bepstei7@jhu.edu  
Office hours: after regular class time for as long as you have questions, no matter how long we have to stay after class (I am happy to help); also by appointment.  
Class location: TBA.  
Class time: Tuesdays 6 pm – 8:45 pm.

NOTES:
1. Make sure you use your jhu.edu email. If not (e.g. using email forwarding) it is possible you may not receive email communications from me (for instance, given email forwarding my emails may go to your spam folder, recycle bin, etc.).
2. If you require any type of special accommodations, please let me know by no later than the third class so that there is sufficient time to plan ahead for your needs.

Course Description, Prerequisites, Etc.

This is a graduate level course in international finance (also known as open economy macroeconomics or international macroeconomics).

You will learn about fundamental issues and policies that arise in international macroeconomic contexts. You will also learn how to understand international macroeconomic issues within the context of intertemporal optimization and time series. Understanding intertemporal optimization and applicable notions of time series will provide you with the fundamental tools that you need in order to understand modern research and policy analysis in international macroeconomics.

You will also learn how to use and apply to international macro contexts Matlab—which is a matrix algebra program widely used in advanced economics—and Dynare—which is a software for handling a wide class of economic models.

You must satisfy all University prerequisites in order to take this class. However, this class is self-contained in the sense that I will provide support for any optimization, computer programming, and time series techniques that may arise. In other words, I will be teaching you everything you need to know for this class from the ground up (in particular, you need not have taken macroeconometrics or time series to perform well in this class), so even if you are not entirely comfortable with “intertemporal optimization,” “time series analysis,” and “computer programming,” or have never really done much (or absolutely any) work related to these topics, rest assured that I will teach you step by step absolutely everything you need to know about these topics in order to do well in the class.
References

The nature of this course is such that there is no single textbook that suffices in scope as a unique reference. **Therefore, there is no required textbook for this class. Instead, I will provide you with lecture notes, and these lecture notes are all you will need in order to do well in the class.**

You are not required to buy the following textbooks. However, for your knowledge, they broadly constitute the joint references on which my lecture notes are based on:


Grading

*There will be no make-up exams nor will late problem sets be accepted unless you provide a legitimate excuse in a reasonably timely fashion.* You will be evaluated on the basis of 1) class participation; 2) 4 problem sets; 3) a midterm exam; 4) a final exam. Each of these components (meaning, in particular, each individual problem set) is worth 100 points total. Your final grade in the class, totaling a maximum possible of 100 points, is a weighted sum of the preceding components. In converting numerical scores to letter grades, I will curve your final numerical score, **only** (so nothing in the class will be letter graded except your final grade). The weights are:

- 10% class participation.
- 20% midterm exam.
- The first 3 problem sets (PS) are each worth 12.5%.
- The remainder of your grade (32.5%) is determined on a per-student basis as follows: 
  \[
  \max\{0.2*(\text{PS 4 grade})+0.125*(\text{final exam grade}), 0.125*(\text{PS 4 grade})+0.2*(\text{final exam grade})\}.
  \]
### Class Schedule, Important Dates, and Background References

<table>
<thead>
<tr>
<th>Class No.</th>
<th>Date</th>
<th>Notes</th>
<th>Background References</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jan. 27</td>
<td></td>
<td>Feenstra and Taylor, Chs. 13, 14 and 22; Krugman, Obstfeld and Melitz Chs. 14 and 22;</td>
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<td></td>
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<td>Montiel, Ch. 3; Krugman and Obstfeld Ch. 6; 6; Simon and Blume Chs. 15, 13-14, and 17-19;</td>
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<td>2</td>
<td>Feb. 3</td>
<td>Math Review Reading due</td>
<td>Canova, Ch.1; Enders, Ch.1; Feenstra and Taylor Chs. 13, 14, and 22; Hamilton, Ch. 1</td>
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<td></td>
<td></td>
<td>Problem Set 1 assigned</td>
<td>Krugman, Obstfeld and Melitz. Chs. 14 and 22; Lutkepohl, Ch. 1; Mark, Ch. 2; Montiel, Ch.3;</td>
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<td>Krugman and Obstfeld Ch. 6; Wickens, Ch. 13.</td>
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<td>3</td>
<td>Feb. 10</td>
<td>Problem Set 1 due</td>
<td>Wickens, Chs. 1, 4, 7, and 16.</td>
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<td>4</td>
<td>Feb. 17</td>
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<td>Class will be held in computer lab</td>
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<td>5</td>
<td>Feb. 24</td>
<td>Problem Set 2 assigned</td>
<td>Feenstra and Taylor, Chs. 13-17; Krugman, Obstfeld and Melitz, Chs. 13017; Montiel, Chs.</td>
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<td>1-4; Wickens, Chs. 7 and 13.</td>
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<tr>
<td>6</td>
<td>Mar. 3</td>
<td>Problem Set 2 due</td>
<td>Feenstra and Taylor, Ch. 17; Krugman, Obstfeld and Melitz, Ch. 21; Wickens Chs. 7 and 13.</td>
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<td>7</td>
<td>Mar. 10</td>
<td></td>
<td>Feenstra and Taylor, Ch. 18; Krugman, Obstfeld and Melitz, Chs. 15-17.</td>
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<tr>
<td>No class</td>
<td>Mar. 17</td>
<td>Spring Break</td>
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<td>8</td>
<td>Mar. 24</td>
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<td>Midterm Exam (in class; covers classes 1-6)</td>
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<td>9</td>
<td>Mar. 31</td>
<td>Problem Set 3 assigned</td>
<td>Feenstra and Taylor, Ch. 18; Krugman, Obstfeld and Melitz, Chs. 15-17.</td>
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<td>10</td>
<td>Apr. 7</td>
<td>Problem Set 3 due</td>
<td>Krugman and Obstfeld, Chs. 1 and 2; Mark, Ch. 5; Wickens, Chs. 7 and 16.</td>
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<td>11</td>
<td>Apr. 14</td>
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<td>Krugman and Obstfeld, Chs. 1 and 2; Mark, Ch. 5; Wickens, Chs. 7 and 16.</td>
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<td>12</td>
<td>Apr. 21</td>
<td>Problem Set 4 assigned</td>
<td>Krugman and Obstfeld, Chs. 1 and 2; Mark, Ch. 5; Wickens, Chs. 7 and 16.</td>
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<td>13</td>
<td>Apr. 28</td>
<td>Problem Set 4 due</td>
<td>Krugman and Obstfeld, Chs. 1 and 2; Mark, Ch. 5; Wickens, Chs. 7 and 16.</td>
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<tr>
<td>14</td>
<td>May 5</td>
<td>Final Exam (in class; focus is classes 7-13)</td>
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Class Contents

1. Exchange Rate Basics
   1.1. Exchange Rate Essentials
   1.2. Multilateral Exchange Rates
   1.3. The Market for Foreign Exchange

2. Sovereign Default
   2.1. Graphical Interpretation
   2.2. Implications of Debt Burden
   2.3. Implications of Volatility
   2.4. Competitive Lending
   2.5. Loan Supply and Demand
   2.6. Implications of Changes in Volatility

3. Time Series
   3.1. What is a Time Series?
   3.2. Expectations
   3.3. Higher Moments
   3.4. White Noise
   3.5. Impulse Response Functions
   3.6. Stationarity, Trends, and Unit Roots
   3.7. Filtering

4. Intertemporal Optimization
   4.1. Introduction
   4.2. Firms Own the Capital Stock
   4.3. Household Own the Capital Stock
   4.4. Centralized Planning Problem

5. Matlab and Dynare
   5.1. Introduction to Basic Programming in Matlab
   5.2. Introduction to Basic Programming in Dynare

6. Covered and Uncovered Interest Rate Parity
   6.1. Riskless Arbitrage: Covered Interest Rate Parity
   6.2. Risky Arbitrage: Uncovered Interest Rate Parity
   6.3. Implications

7. Long Run Analysis
   7.1. Exchange Rates and Prices in the Long Run
   7.2. Money, Prices and Exchange Rates in the Long Run
   7.3. Money, Interest Rates, and Prices in the Long Run
8. Short Run Analysis
   8.1. Exchange Rates and Interest Rates in the Short Run
   8.2. Interest Rates in the Short Run

9. A Complete Theory

10. Fixed Exchange Rates and the Trilemma

11. National and International Accounts
   11.1. A Closed Economy
   11.2. An Open Economy: Part I
   11.3. An Open Economy: Part II

12. External Wealth

13. The Gains from Financial Globalization
   13.1. The Long-Run Budget Constraint
   13.2. Consumption Smoothing
   13.3. Efficient Investment
   13.4. Diversification of Risk

14. A Model of Macro Policies in the Short Run
   14.1. Consumption
   14.2. Investment
   14.3. Government Consumption
   14.4. The Trade Balance
   14.5. Effect of Basic Shocks
   14.7. The IS Curve
   14.8. The LM Curve

15. Policy Implications
   15.1. Monetary Policy Under Floating Exchange Rates
   15.2. Monetary Policy Under Fixed Exchange Rates
   15.3. Fiscal Policy Under Floating Exchange Rates
   15.4. Fiscal Policy Under Fixed Exchange Rates

16. Stabilization Policy

17. Trade and the Current Account
   17.1. Preliminaries
   17.2. Baseline Model
17.3. Government Consumption
17.4. The Role of Investment
17.5. Lagrangian Approach

18. International Business Cycles
   18.1. Business Cycles and the Current Account
   18.2. A Basic model
   18.3. Model Solution, Measurement, and Calibration
   18.4. Business Cycle Dynamics
   18.5. Business Cycle Implications

19. Puzzles in International Macroeconomics
   19.1. Home Bias
   19.2. Feldstein-Horioka
   19.3. Home Bias in Equity Portfolios
   19.4. International Consumption Correlations
   19.5. Purchasing Power Parity
   19.6. Exchange Rate Disconnect