ECM134 INTERNATIONAL MONEY AND FINANCE

Module Outline and Reading List 2013-14

This module is intended to be the next step beyond what is traditionally taught in an undergraduate intermediate course in international finance or international macroeconomics. The module will introduce students to the concepts and models that are widely used in modern analysis of central open-economy topics such as balance of payments adjustment, exchange rate determination and monetary policy coordination.

Having taken this course, students should be able to comprehend and interpret key results from the most commonly used models of open-economy macroeconomics and international finance. More importantly, they should be able to link major conclusions from these models to relevant real-world financial, macroeconomic, and policy situations as well as discuss broader national and global welfare and coordination issues.

The module will be based on a work-in-progress textbook targeting the MSc level in the special field of interest by León-Ledesma and Mihailov (see below). Lecture notes and their essential structure in the form of presentation slides (to be discussed in class) will be posted in pdf version on the course website. Any feedback will be appreciated.

Four popular textbooks are recommended/supplementary reading for those with a deeper interest in the subject (see below), but will not be covered in full during lectures. They are not quite up-to-date, but are useful on various topics. Other bibliographical sources, including book chapters and journal articles, will be proposed as background reading on certain aspects of the course.

Essential/Required Reading

1. León-Ledesma, Miguel and Alexander Mihailov, “Advanced International Macroeconomics and Finance”, Oxford University Press, 2014 (in progress) – represents an up-to-date, broad account of the core theories, models and empirical regularities or puzzles in international macroeconomics and finance from a unified analytical and historical perspective; a rich dataset with relevant exercises and programs will be made available to the students.

Recommended/Supplementary Reading

1. Gandolfo, Giancarlo, “International Finance and Open-Economy Macroeconomics”, Springer, 2001 – a wonderful reading, and a major reference book, on both the intellectual history and the analytics of the most prominent lines of research in open-economy macroeconomics.
2. Mark, Nelson, “International Macroeconomics and Finance: Theory and Econometric Methods”, Blackwell, 2001 – a compact, balanced and insightful account of the most influential theory and empirics in international macroeconomics; a companion website to this lucid textbook with a number of downloadable Gauss programmes can be consulted.

3. Obstfeld, Maurice and Kenneth Rogoff, “Foundations of International Macroeconomics”, MIT Press, 1996 – uses modern analytical methods to develop a (first) coherent framework for the study of a wide range of fundamental issues related to the interdependence of open economies; a companion website to this comprehensive treatise with solution guide to end-of-chapter problems can be consulted.


Relevant Journals

1. Journal of International Economics, Elsevier Science: a major outlet, since 1971, for theoretical and empirical research in all areas of international economics; JIE is accessible for reading either at the university library or online (from 1995 onwards) via its services.

2. Journal of International Money and Finance, Elsevier Science: since its launch in 1982, JIMF has built up a solid reputation as a high-quality scholarly journal devoted to theoretical and empirical research in the fields of international monetary economics, international finance, and the rapidly developing overlap area between the two; JIMF is accessible for reading either at the university library or online (from 1995 onwards) via its services.

3. Open Economies Review, Springer: the journal, which first appeared in 1990, encourages interdisciplinary communication and interaction among researchers in the vast area of international and transnational economics; unfortunately, OER is not (yet) accessible at, or online via, the university library.

4. International Review of Economics and Finance, Elsevier Science: since its launch in 1992, the journal publishes papers which deal with contemporary economic and financial issues and problems faced by national, regional, and global economies; IREF is accessible for reading either at the university library or online (from 1995 onwards) via its services.

5. Review of International Economics, Blackwell: founded in 1993, this journal covers a full range of topics in international economics including both controversial and innovative ideas and detailed contributions from other directly related fields, relevance to real world problems being a paramount concern; RIE is accessible for reading online via the university library (excluding last 12 months).

6. International Journal of Finance and Economics, Wiley InterScience: a relatively new journal, launched in 1996, which aims to be accessible to non-specialists, policy-makers and practitioners and to publish on a broad scope of issues in international finance; IJFE is accessible for reading either at the university library or online (excluding last 12 months) via its services.
7. **International Finance**, Blackwell: a recently founded journal, in 1998, *IF* claims to bridge the gap between theory and policy in macroeconomics and finance, seeking to publish thought-provoking and policy-relevant analysis; *IF* is accessible for reading either at the university library or online (excluding last 12 months) via its services.

**Useful Websites**

**I. Economists’ Resources**

1. Nouriel Roubini’s [Global Economics Monitor](#) service
2. Aykut Kibritcioglu’s [Online Gateway to Economics](#)
3. Jamus Jerome Lim’s [International Economics Network](#) portal
4. Giancarlo Corsetti’s [Euro](#) homepage

**II. Research Institutes/Centres**

1. Peterson [Institute for International Economics (IIE)](#)
2. Kiel [Institute for the World Economy (IfW)](#)
3. [Research Centre in International Economics (CREI)](#)

**III. International Organisations**

1. [International Monetary Fund (IMF)](#)
2. [World Bank Group](#)
3. [Bank for International Settlements (BIS)](#)
4. [Organisation for Economic Cooperation and Development (OECD)](#)

**Course Outline**

The respective chapters in León-Ledesma and Mihailov are *essential/required* reading whereas the references suggested further down are recommended as either as *supplementary* reading for a deeper understanding of a particular topic or as *background* reading on certain aspects of it. A number of other key articles will be added as the course proceeds on.
PART I. MACROECONOMIC CONCEPTS AND THEORIES OF EXTERNAL ADJUSTMENT

Week 1: Tuesday, 14 January 2014

Chapter 1. Basic Notions of Open-Economy Macroeconomics

The objective of this first chapter is to revise in a more or less systematic way the basic notions of open-economy macroeconomics and to introduce some initial notation (maintained uniform throughout the book, as far as this proved possible). Its structure is organised as follows. Section 1 delimits the subject of our book and distinguishes between the main approaches to it. Definitions and interpretations of the most essential concepts related to the exchange rate and the foreign exchange market are summarised in section 2; to the international interest-rate parity conditions in section 3; to the balance of payments and international reserves in section 4. Finally, section 5 presents a synthetic approach to national accounting in the open economy. As a technical complement underlying the chapter, some basic applications of logarithms are revised, the construction of effective exchange rate indexes is explained, and the principles of open-economy national accounting are illustrated with some detail in a self-contained framework.

1 Old and New Approaches to International Finance

(1) Gandolfo, sections 1.1 and 1.3

2 The Exchange Rate and the Forex Market
2.1 Exchange Rates
2.1.1 Bilateral Exchange Rate(s)
2.1.2 Multilateral (or Effective) Exchange Rate(s)
2.1.3 (Nominal) Exchange-Rate Regimes
2.2 The Forex Market(s)
2.2.1 Spot Market
2.2.2 Forward Market and Hedging
2.2.3 Swap Market
2.2.4 Offshore Currencies Market
2.2.5 Derivative Market

(1) Gandolfo, chapter 2

3 International Interest Parity Conditions
3.1 Covered Interest Parity
3.2 Uncovered Interest Parity and Risk Premia
3.3 Empirics of CIP and UIP
3.4 Real Interest Parity

(1) Gandolfo, chapter 4
(2) Mark, section 1.1

4 The Balance of Payments and Forex Reserves
4.1 Some Terminology4.2 Accounting Principles
4.3 BoP Components
Chapter 2. Static Macroeconomic Approaches to the Balance of Payments and the Exchange Rate

In this chapter, we summarise the major theories of balance of payments (BoP) adjustment in use since the inter-war period and, particularly, during the Bretton-Woods era. These theories were mostly based on static partial equilibrium (PE) models of an aggregative nature. Since capital movements were not as important in those times as they are today, the BoP was essentially interpreted as equivalent to the current account (CA), and often even as the balance on goods and services only. Abstracting from capital flows is nowadays unrealistic. Nevertheless, it is worth here starting from the simplest, and chronologically earlier, models to progressively build upon them. Understanding the CA is thus a necessary first step to consider the BoP as a whole and the interactions among open economies. The early theories of the BoP focused on two alternative adjustment channels: exchange rate changes or changes in income, both under the ceteris paribus clause (i.e. in PE). The former would be operative under a flexible exchange rate system, whereas the latter under a peg. We begin in section 1 with a simple model that highlights BoP adjustment through exchange rate changes, also known as the elasticity approach. In section 2 we go on to look at the alternative mechanism of BoP adjustment through income changes, often termed the (foreign trade) multiplier approach. Section 3 then discusses the so-called transfer problem and its possible explanations based on the elasticity approach versus the multiplier approach, a major debate in the inter-war and post-war period. In section 4, we sketch an integrated approach to BoP adjustment which merges and nests — generalising rather than contrasting — the two earlier approaches, suggested in the Laursen-Metzler (1950) model. Section 5 finally presents one of the longest-lived workhorses of international macroeconomics, especially at the policy-making level, the original (static) Mundell-Fleming model of the early 1960s. It is, in essence, an extension of the closed-economy IS-LM Keynesian sticky-price model of Hicks (1937) and Hansen (1953) to the case of the open economy. As a technical complement underlying the chapter, dynamic stability of equilibrium, total differentiation, the chain rule and interpreting partial derivatives as impact effects in comparative statics exercises are illustrated with some detail in appropriate contexts, in addition to the basic algebra deriving the key results.
1 BoP Adjustment through Exchange-Rate Variation: The Classical Elasticity Approach
1.1 Assumptions
1.2 Expenditure-Switching and Expenditure-Reducing Policies
1.3 The Marshall-Lerner Critical Elasticities Condition
1.4 Elasticity Optimism versus Elasticity Pessimism
1.5 Foreign Exchange Market Equilibrium and Stability
   (1) Gandolfo, chapter 7

2 BoP Adjustment through Income Changes: The Foreign Trade Multiplier Approach
2.1 Assumptions
2.2 Model and Solution
2.3 Analysis and Results
2.3.1 BoP Adjustment Following an Exogenous Increase in Exports
2.3.2 BoP Adjustment Following an Exogenous Increase in Imports
   (1) Gandolfo, sections 8.1 through 8.5

3 The Transfer Problem: The Elasticity Approach versus the Multiplier Approach
3.1 Keynes (1929) and the Classical Theory
3.1.1 Assumptions
3.1.2 Analysis
3.1.3 Results
3.2 Ohlin (1929) and the Multiplier Theory
3.2.1 Assumptions
3.2.2 Analysis
3.2.3 Results
   (1) Gandolfo, section 8.6
   (2) Obstfeld and Rogoff, section 4.5.5.4
   (3) Keynes, J. M. (1929), The German Transfer Problem, Economic Journal 39, 1-7

4.1 Interaction between Exchange-Rate and Income Changes in the Adjustment Process
4.1.1 Model Set-Up under SOE
4.1.2 Model Summary under SOE
   (1) Gandolfo, section 9.1

4.2 The J-Curve and the S-Curve
   (1) Gandolfo, sections 9.2 and 9.3
4.3 On the Insulating Properties of Flexible Exchange Rates

(1) Gandolfo, section 9.4


5.1 The Original Static Model
5.1.1 Assumptions
5.1.2 Model Representation in Log-Levels
5.1.3 Model Representation in Percentage Changes
5.2 Policy Analysis
5.2.1 Effectiveness of Fiscal Policy as a Stabilisation Tool
5.2.2 Effectiveness of Monetary Policy as a Stabilisation Tool

(1) Gandolfo, chapters 10 and 11
(2) Mark, section 8.1
(3) Sarno and Taylor, section 4.1.1

Weeks 4-5: Tuesday, 4-11 February 2014

Chapter 3. Dynamic Macroeconomic Approaches to the Balance of Payments and the Exchange Rate

Having explored various implications of the comparative statics analysis in the preceding chapter, we now turn to deterministic (i.e., not stochastic) dynamic macroeconomic models of balance of payments adjustment and exchange rate determination. These models are based on postulated aggregate relationships in open economy environments and are dynamic insofar as they are solved under perfect foresight, which is the strongest form of rational expectations. After briefly introducing the concept of rational expectations in section 1, we first review in section 2 the stock, or asset (market), model of the BoP and the NER under flexible prices. This is the monetary approach developed in the late 1960s and the 1970s. Section 3 then switches to sticky prices and presents in detail a very influential article, the Dornbusch (1976) model of exchange rate overshooting, in fact, a dynamic version of the static Mundell-Fleming framework studied in chapter 2. It is, certainly, due to the significant contribution made by each of these three authors that this general set-up and its extensions in the subsequent literature are sometimes called the Mundell-Fleming-Dornbusch tradition (or paradigm) in international macroeconomics. We conclude the chapter by reviewing, in section 4, some empirical implications of the exchange rate models discussed, considering in particular the random walk hypothesis of the exchange rate in Meese and Rogoff (1983 a, b) and later work. As a technical complement underling the chapter, backward and forward solutions to stochastic difference equations as well as the general solution to deterministic...
homogeneous differential equations are illustrated with some detail in appropriate contexts; also, the difference among and the rationale for perfect foresight, static, adaptive and rational expectations as well as mean error (ME), mean absolute error (MAE) and root mean square error (RMSE) of forecasts are analytically clarified.

1 The Rational Expectations Revolution
1.1 Expectations and Economic Behaviour
1.2 A Basic Analytical Taxonomy of Modelling Expectations in Economics
   1.2.1 Perfect Foresight
   1.2.2 Naive or Static Expectations
   1.2.3 Adaptive Expectations
   1.2.4 Rational Expectations
1.3 Muth (1961) and the Rational Expectations Revolution in Macroeconomics

2 Flexible-Price Stock Approach under Perfect Foresight: The Monetary Model
2.1 The Monetary Approach to the Balance of Payments (Peg)
   2.1.1 Origins: The Classical (Humean) Price-Specie-Flow Mechanism
   2.1.2 Main Assumptions
   2.1.3 Set-Up and Derivation of Key Result
   2.1.4 Analysis and Interpretation
2.2 The Monetary Approach to the Exchange Rate (Float): The Monetary Model
   2.2.1 Set-Up and Derivation of Key Results
   2.2.2 General Forward-Looking Solution
   2.2.3 No-Bubbles Solution
   2.2.4 Rational Bubbles
   (1) Gandolfo, chapters 12 and 13
   (2) Mark, chapters 3 and 7
   (3) Obstfeld and Rogoff, section 4.1 and chapter 8
   (4) Sarno and Taylor, chapter 3 and sections 4.1.2, 4.1.3, 4.2.1, 4.1.5 and 4.2.3

3 Sticky-Price Models of Exchange Rate Dynamics under Perfect Foresight: The Dornbusch (1976) Overshooting Model
3.1 Stylised Facts the Model was Designed to Explain
3.2 Key Assumptions of the Model
   3.2.1 General Assumptions
   3.2.2 Capital Mobility and Exchange-Rate Expectations Formation
   3.2.3 Money Market Structure and Equilibrium
   3.2.4 Goods Market Structure and Equilibrium
3.3 Model Equilibrium and Transition Paths
   3.3.1 Graphical Analysis
   3.3.2 Alternative Ways of Goods Market Clearing
   3.3.3 Consistent Expectations
3.4 Model Main Result: Exchange Rate Overshooting
   (1) Obstfeld and Rogoff, chapter 9
   (2) Dornbusch, Rudiger (1976), Expectations and Exchange Rate Dynamics, *Journal of Political Economy* 84 (6, December), 1161-1176
4 Empirics of the Nominal Exchange Rate and the Random Walk Hypothesis
4.1 Meese and Rogoff (1983): The Exchange Rate Disconnect Puzzle
4.2 Explaining the Meese and Rogoff (1983) Results
4.2.1 Econometric Issues
4.2.2 Engel and West (2005): The Exchange Rate as a Near-Random Walk
4.2.3 Where Do We Stand?

PART II. FOUNDATIONS OF INTERTEMPORAL TRADE, RISK SHARING AND THE REAL EXCHANGE RATE

Weeks 6-7: Tuesday, 18-25 February 2014

Chapter 4. The Intertemporal Approach to the Current Account: Analytical Introduction of Time

All open-economy models we considered until now, in Part I of the book, were not “microfounded”, in the sense that macroeconomic relationships were not derived from an explicit optimisation problem on the part of households and firms. With the present chapter, we begin to introduce these microfoundations, as well as the corresponding structure of modern general equilibrium models. This chapter deals with the analytical introduction of time in models of the current account, while the next chapter adds uncertainty. We discuss how modern dynamic macroeconomic models of the open economy are built and their relevant empirical implications. These empirical implications are often examined by “agnostic”, statistical methods with minimal economic theory restrictions, such as various types of vector autoregressions (VARs). We do this with the view that both theory and empirics are necessary elements in macroeconomic modelling, rather than contrasting approaches, as we argue in section 1. When employed together, these two approaches at the core of modern macroeconomics enrich our understanding of how open economies work. Section 2 introduces a basic, partial equilibrium (SOE) set-up, and section 3 extends it to (two-region global economy) general equilibrium. Section 4 analyses the infinite horizons context and discusses the concept of current account solvency and debt crises. Section 5 presents an overview of empirical tests of the intertemporal model of the current account. We also discuss in that section a recently developed complementary mechanism for external adjustment that emphasises the valuation channel of net foreign assets. As a technical complement underlying the chapter, we illustrate the Lagrange method of constrained optimisation for solving intertemporal models, present-value tests used in VARs of the current account and linearization techniques to approximate the external constraint facing an open economy.

1 On Macroeconomic Methodology: DSGEMs and VARs
2 A Two-Period Small Open Economy Real Model: Partial Equilibrium
2.1 A Small Endowment Economy
2.1.1 Assumptions
2.1.2 Households: The Consumer’s Problem
2.1.3 Equilibrium
2.1.4 Back to the Current Account: Analytical Reinterpretation
2.1.5 Temporary vs Permanent Endowment Changes, the RIR and the CA
2.2 Introducing Production, Investment and Government Spending
2.2.1 The Current Account Again: Saving Minus Investment
2.2.2 The Optimisation Problem and Interpretation

(1) Obstfeld and Rogoff, section 1.1

3 A Two-Period Two-Region World Economy Real Model: General Equilibrium
3.1 A Global Endowment Economy
3.2 Interest Rates and the Shape of the Savings Function
3.2.1 Elasticity of Intertemporal Substitution in Consumption
3.2.2 Substitution, Income and Wealth Effects

(1) Obstfeld and Rogoff, section 1.3

4 More Than Two Periods: Solvency of a SOE
4.1 Sovereign Solvency: Concepts
4.2 Sovereign Solvency: Empirics

(1) Obstfeld and Rogoff, section 2.1

5 Testing the Present-Value Model of the Current Account
5.1 Early Evidence: The Feldstein-Horioka Puzzle
5.2 VAR and SVAR Evidence
5.3 International Financial Adjustment

Weeks 8-9: Tuesday, 4-11 March 2014

Chapter 5. Asset Markets and Risk Sharing: Analytical Introduction of Uncertainty

This chapter continues to develop the analytical basics of open-economy models and international interdependence derived from explicit optimising agent behaviour. Having dealt with trade across time, we now turn to trade across states of nature. In the previous chapter we showed in a real model how world “capital” markets allow for intertemporal smoothing that isolates countries’ consumption from temporary (idiosyncratic) shocks to income. Here we analyse a parallel role of asset markets as mechanisms to pool risks, hence providing insurance for uncertain future (idiosyncratic) income. These two problems have a common underlying structure, which we exploit further in the chapter. Section 1 introduces key notions and theories related to the role of financial instruments in general equilibrium with complete or incomplete markets. Section 2 derives a small open-economy real model with two periods and two states in the second period. Section 3 extends the setting to a two-country two-period multiple-state global economy. Section 4, then, analyses the relationship between consumption smoothing and international risk sharing and their empirical consequences for consumption and the current account. Section 5 discusses available evidence on risk sharing in consumption at the international level as well as when and how capital market liberalisation has contributed to macroeconomic stability, pointing to some limitations of the basic framework, such as the existence of capital market imperfections. As a technical complement underlying the chapter, the modelling of expected utility and the method of transforming a constrained optimisation problem into a corresponding unconstrained one and solving it are illustrated with some detail in appropriate contexts.
1 Financial Contracts in General Equilibrium

2 A Stochastic Two-Period Real Model of a Small Open Economy
   2.1 Assumptions
   2.2 State-Contingent Consumption Plans
   2.3 The Consumer’s Problem under Uncertainty
      2.3.1 Lifetime Expected Utility
      2.3.2 Arrow-Debreu Securities and Complete Asset Markets
      2.3.3 Budget Constraints with Arrow-Debreu Securities
      2.3.4 Full Insurance: Optimal or Not?
      2.3.5 Optimal Behaviour and Model Equilibrium
      2.3.6 Creating Synthetic Assets from Primal Arrow-Debreu Securities
      2.3.7 Actuarially Fair A-D Securities Prices: More on Optimal Insurance
      2.3.8 The Role of the Coefficient of Relative Risk Aversion
      2.3.9 Consumption Demands and the CA in the Log-Utility Special Case

3 A Stochastic Two-Period Real Model of a Two-Country Global Economy: The CRRA Case
   3.1 Assumptions
   3.2 Model Solution Algorithm
      3.2.1 Equilibrium Prices
      3.2.2 Date 1 Prices of Contingent Securities
      3.2.3 Equilibrium Consumption Levels
   3.3 Model Interpretation: Consumption Risk Pooling
      (1) Obstfeld and Rogoff, sections 5.1 and 5.2

4 Consumption Risk Sharing and Consumption Smoothing
   4.1 A Simple Model of Risk Pooling and Consumption Smoothing
   4.2 Shocks and the Current Account Revisited

5 Empirics of International Consumption Risk Sharing
   5.1 Evidence on International Risk Sharing
   5.2 The Backus-Smith (1993) Puzzle
   5.3 Possible Explanations of the Puzzle
   5.4 An Aside: Capital Market Integration and Macroeconomic Volatility

PART III. OPTIMISING MODELS OF INTERNATIONAL MACROECONOMICS AND FINANCE

Week 10: Tuesday, 18 March 2014 (partially, if time allows) – but also a 30-minute quiz

Chapter 7. Optimising Models of Exchange Rates, Asset Prices, and Business Cycles Under Flexible Prices

Having analysed the basis of intertemporal decisions and behaviour under uncertainty, we can now move on to optimising models of exchange rates and asset prices, as well as the analysis of business cycles in the open economy. In this chapter we focus on models that assume flexible prices, which is the benchmark case. We first analyse, in section 1, the Lucas (1982) dynamic stochastic general equilibrium (DSGE) model, an optimising consumption-based model of exchange rate determination and regimes under complete markets. The model is
important not only because of its conclusions about our variables of interest, but also from a methodological point of view. It is a major example of the methodology followed in the build-up and analysis of microfounded models of open economy macro-finance and asset pricing that will occupy much of the next few chapters. Indeed, this methodology, incorporating individual behaviour and rational expectations in aggregate models, has been dominant in macroeconomics during the last 30 years. The Lucas (1982) model also nicely integrates many of the ideas we have dealt with in previous chapters. In section 2, we describe two other puzzles in macroeconomics and finance, the “equity premium puzzle” and the “equity home bias puzzle”, which arise from some of the conclusions of the model and related literature. These puzzles will also help understanding some basic features of asset pricing models in financial economics and how they relate to open-economy macroeconomics. We conclude the chapter by discussing, in section 3, International (Real) Business Cycle (I(R)BC) theory, which in part extends the Lucas (1982) approach to more realistic settings, including production and capital accumulation. The model also adds to microfounded models the calibration method proposed by Kydland and Prescott (1982). I(R)BC models aim at reproducing key real world data moments related to output, consumption, investment and net exports. As a technical complement underlying the chapter, we illustrate the link between the DSGE and I(R)BC methodologies, combining theory and data to explain short-run fluctuations by means of calibration; we also develop basic concepts of asset pricing and the use of the properties of important statistical distributions.

1 The Lucas (1982) Open-Economy Asset Pricing Model
1.1 Two-Country Barter Exchange Economy
1.1.1 Assumptions
1.1.2 Constraints
1.1.3 Objective and First-Order Conditions
1.1.4 Market Clearing
1.1.5 Centralised Social Optimum
1.1.6 Decentralised Market Equilibrium
1.1.7 Solution under CRRA Utility
1.2 Two-Country Single-Currency Exchange Economy
1.2.1 Introducing Money through Cash-in-Advance Constraint
1.2.2 Timing of Events: The Worker-Shopper Family Split Metaphor
1.2.3 Constraints
1.2.4 Objective and First-Order Conditions
1.2.5 Market Clearing
1.2.6 Solution and Bond Pricing under CRRA Utility
1.3 Two-Country Two-Currency Exchange Economy
1.3.1 Flexible Exchange Rate Regime
1.3.2 Fixed Exchange Rate Regime

(1) Mark, chapter 4

2 Two Puzzles on Equity
2.1 The Equity Premium Puzzle
2.1.1 Updating the Mehra-Prescott (1985) Findings
2.1.2 Suggested Explanations to the Equity Premium
2.2 The Equity Home Bias Puzzle
2.2.1 Theory and Measurement
2.2.2 Suggested Explanations to the Equity Home Bias


3 International (Real) Business Cycle Models
3.1 Real Business Cycle Research in Closed Economy
3.2 A Canonical Model of I(R)BC
3.2.1 Assumptions
3.2.2 Technology
3.2.3 Preferences
3.2.4 Government
3.2.5 Asset Market Structure
3.2.6 Equilibrium with Complete (Contingent) Markets: GE Case
3.2.7 Equilibrium with Bond-Only (Noncontingent) Markets: SOE Case
3.2.8 Equilibrium with Bond-Only (Noncontingent) Markets: GE Case
3.2.9 Calibration
3.2.10 Measuring Productivity: Solow Residuals
3.2.11 Simulation and Model Comparisons

(1) Mark, sections 5.1 and 5.2
(2) Obstfeld and Rogoff, sections 7.4.3.1 – 7.4.3.5
(3) Kydland, Finn and Edward Prescott (1982), Time To Build and Aggregate Fluctuations, *Econometrica* 50 (November), 1345-1370