

Ten Lectures on International Macroeconomics

Giancarlo Corsetti

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Preliminary

This page will be updated during the next few weeks. Some links may not work or may be out-of-date

This is a self-contained series of ten lecture in international macroeconomics, focusing on the international transmission mechanism. The lectures combine current relevant policy issues with long-standing questions about macroeconomic interdependence. The main goal is to learn about recent development in the field, and identify possible directions to develop policy-friendly general equilibrium models of the international economy. There will be a few core reading each day, denoted with a star in the reading list to follow.

The structure of the lectures is as follows. The first one review the current debate on global imbalances: the goal is to identify crucial question about the international transmission mechanisms, contrasting conventional and unconventional views. The second one focuses on the role of exchange rate and international price movement in the adjustment process, reviewing main ideas and the empirical evidence. The third lecture provides an analytical close-up on the core transmission mechanism in general equilibrium, providing a guide to understand the performance of large DSGE models used by policymakers. Lectures and suggested homework may/may not be posted during the lecture period.

The fourth lectures focuses on models with high consumption risk insurance --- which are most common in academic and policy work. The fifth lecture present an analytical dissection of the state-of-the-art debate on policy stabilization and exchange rate regimes in open economy. The sixth lecture presents novel theoretical insight into modelling fiscal policy in open economy.

Lectures 7 and 9 discuss weakness of models with high risk insurance, or model subscribing to the conventional view of the international transmission. It discusses three possible development of incomplete market models accounting for the following stylized facts: exchange rate volatility and stability of local prices (low pass through); the so-called Backus-Smith anomaly; Market dynamics (firms' entry and exit).

The last lecture presents an overview of recent work on financial and currency stability.

Lecture 1. Setting the stage: the current debate on global imbalances

- Global imbalances: Causes, Remedies, Adjustment.
- Challenges to current models of the international transmission mechanism: portfolio allocation; relative prices; wealth effects.
 - * Chapter 2 of the 2006 EEAG Report on the European Economy: www.cesifo.de and references within.
 - Lane, P. and G. M. Milesi-Ferretti (2006), "The External Wealth of Nations Mark II: Revised and Extended Estimates of External Assets and Liabilities", *International Monetary Fund*.
 - G. Corsetti and P. Konstantinuous (2003), "The dynamics of US foreign net liabilities: an empirical characterization", mimeo
 - Gourinchas and Rey [International Financial Adjustment](#). October 2003
 - Lane, P. and G. M. Milesi-Ferretti (2006), "The External Wealth of Nations Mark II: Revised and Extended Estimates of External Assets and Liabilities", *International Monetary Fund*.
 - * Obstfeld, M. and K. Rogoff (2004), "The Unsustainable US Current Account Position Revisited", *NBER Working Paper* no.10869.

Lecture 2. PPP and the law of one price

A new emerging consensus? Current debates on the role of tradable vs nontradable price movements in driving real exchange rate fluctuations, and on the speed of convergence.

Background reading: * Rogoff K. The Purchasing Power Parity Puzzle, *Journal of Economic Literature* 1996

What drives local currency price stability?

(a) *Relative price of tradables (deviations from the law of one price plus terms of trade)*

- Engel, Charles [1999]. "Accounting for US Real Exchange Rate Changes," *Journal of Political Economy* 107, 507-38.
- Engels C. and J. Rogers. "How wide is the border", *American Economic Review* 1996, 86:1112-1125.
- . V. Chari, Patrick J. Kehoe, and Ellen R. McGrattan [Can Sticky Price Models Generate Volatile and Persistent Real Exchange Rates?](#)

(b) *Relative prices of non tradables*

- * [The Importance of Nontradable Goods' Prices in Cyclical Real Exchange Rate](#)

[Fluctuations](#) by Ariel Burstein, Martin Eichenbaum and Sergio Rebelo, mimeo 2005

- [Large Devaluations and the Real Exchange Rate](#), by Ariel Burstein, Martin Eichenbaum and Sergio Rebelo, published in the Journal of Political Economy, August 2005. Includes data and replication materials.

(c) *Price discrimination?*

- * Corsetti and Dedola: [Macroeconomics of International Price Discrimination](#) Journal of International Economics, 2005, Firms problem.
- Dornbusch R. "Exchange Rates and Prices", American Economic Review, 1987, 83-106

Recent evidence: * Gopinath and Rigobon "Sticky Borders" mimeo, 2006

Testing for PPP

(a) *Aggregation bias in classical tests of PPP*

- * Jean Imbs, Haroon Mumtaz Helene Rey, Morten Ravn "[PPP Strikes Back: Aggregation and the Real Exchange Rate](#)" *Aggregating prices with different half-life induce an upward bias in estimating half-life: the sum of a stationary process and a non-stationary process is a non-stationary process. This paper has generated a debate. Get a [summary](#). Also, "[Aggregation Bias](#)" [DOES Explain the PPP Puzzle](#): contains the answer by the four authors above to Engel's criticisms.*

(b) *Tests allowing for costs of arbitrage*

- Maurice Obstfeld, Alan M. Taylor -- "[Nonlinear Aspects of Goods-Market Arbitrage and Adjustment: Heckscher's Commodity Points Revisited](#)" NBER Working Paper No. W6053 Issued in June 1997 *See also* O'Connell, P, 1998, "The Overvaluation of Purchasing Power Parity, Journal of International Economics, 44, February, 1-19.

(c) *Additional econometric problems*

- Paul Cashin and C. John McDermott, [An Unbiased Appraisal of Purchasing Power Parity](#) IMF Staff Papers December 2003 *Conventional least-squares-based estimates of half-lives are biased downward*

Lecture 3. International transmission mechanism: core analytical issues

1. The ABC of the international transmission in a stylized two-goods, two-country model

- Complete markets: terms of trade spillovers are positive
- Incomplete markets: wealth effects, relative demand and international price adjustment under financial autarky
- A generalization to bond-only economies: shock persistence and trade elasticities.
 - * Section 2 of Corsetti, Giancarlo, Luca Dedola and Sylvain Leduc "[International Risk Sharing and the Transmission of Productivity Shocks](#)", mimeo. (new version 2006, section 2).

2. A look at the data: the international transmission of productivity shocks in G7 countries

- * Corsetti Dedola and Leduc: [Productivity, External Balance and Exchange Rates: Evidence on the Transmission Mechanism Among G7 Countries](#) Version of June 2006

Lecture 4. Open macro models with high risk insurance

- Cole and Obstfeld economies
- Portfolio diversification
- From Macroeconomic analysis and policy design using models with high degree of risk insurance
 - Obstfeld and Rogoff book, Chapter 5
 - Cole H. and M. Obstfeld, "Commodity Trade and International Risk Sharing: How much do financial markets matter?" JME 1991, 28: 3-24
 - Corsetti and Pesenti "Welfare and Macroeconomic Interdependence" QJE 2001
 - Heatcote and Perri 2004, The International Diversification Puzzle is not as bad as you think

Lecture 5. Inflation and output stabilization in the world economy: lessons from the New Open Economy Macroeconomics

- The simple analytics of the international transmission of productivity and monetary shocks with nominal rigidities
- Monetary stabilization in closed economies
- Early debates on the role of exchange rates and relative price adjustment

- Stabilization in open economies
- Is there an international dimension of stabilization policy?
- Are there gains from International policy co-ordination?
- A reconsideration of the theory of Optimum Currency Areas
- Optimal export pricing with nominal rigidities (endogenous exchange rate pass-through)
 - Corsetti and Pesenti [International Dimensions of Optimal Monetary Policy](#) Journal of Monetary Economics, 52/2 pp 281-305
 - Corsetti and Pesenti [The simple geometry of transmission and stabilization in closed and open economy](#), February 2005
 - Corsetti [Openness and the case for flexible exchange rates](#) Forthcoming *Research and Economics*.
 - Corsetti [Monetary policy in heterogeneous currency unions: Reflections based on a micro-founded model of Optimum Currency Areas](#) Notes based on the keynote speech delivered during the conference 'Monetary policy implications of Heterogeneity in a Currency Area,' European Central Bank, Frankfurt am Main, 13-14 December 2004
 - [Lecture notes on the Mundell-Fleming model by Pesenti and Corsetti](#)
 - Devereux and Engel "[Monetary Policy in the Open Economy Revisited: Exchange Rate Flexibility and Price Setting Behavior](#)," and [Appendix](#) (with Michael B.), Review of Economic Studies 70, October 2003, 765-783.
 - Engel "[Expenditure Switching and Exchange Rate Policy](#)," NBER Macroeconomics Annual 2002, no. 17, 231-272.
 - "[Expenditure Switching vs. Real Exchange Rate Stabilization: Competing Objectives for Exchange Rate Policy](#)" Devereux and Engel.
 - Obsteld M. and K. Rogoff, Global implication of Self-Oriented national monetary rules, QJE 2002
 - Obsteld M. and K. Rogoff, New Directions for Stochastic Open Economy Models Maurice JIE 2001

Lecture 6. International transmission of fiscal policy

- An analytical inspection of different transmission channels
- Crowding out in open economies: theory and some empirical evidence
- The debates on the consumption multiplier
 - Corsetti and Mueller [Twin Deficits: Squaring Theory, Evidence and Common Sense](#), prepared for Economic Policy. This version: March 15.
 - Monacelli Perotti Fiscal Policy, Trade Balance and the Real Exchange Rate: Implications for International Risk Sharing, mimeo 2006
 - Kim and Roubini Twin Deficit or Twin Divergence? Fiscal Policy, Current Account, and Real Exchange Rate

Lectures 7-9: new directions in developing DSGE models for policy

analysis

- Introduction: Hurdles for model building
 - Obstfeld M. and K. Rogoff, [The Six Major Puzzles in International Macroeconomics: Is There a Common Cause?](#), NBER macro annual 2000
 - Backus, David K., and Gregor W. Smith, [1993]. "Consumption and Real Exchange Rates in Dynamic Economies with Non-traded Goods," *Journal of International Economics* 35, 297-316.
 - V. V. Chari, Patrick J. Kehoe, and Ellen R. McGrattan (CKM) [Can Sticky Price Models Generate Volatile and Persistent Real Exchange Rates?](#)

Lecture 7. Exchange rate volatility and price stability: stylized facts and modelling choices (pass-through in general equilibrium).

- Real and monetary determinants of pass-through
- Two fundamental models of exchange rate volatility
- A theoretical perspectives on empirical models of pass-through
 - Bacchetta and an Wincoop [A Theory of the Currency Denomination of International Trade](#) *Journal of International Economics*
 - Backus, David K., Patrick J. Kehoe, and Finn E. Kydland [1995]. "International Business Cycles: Theory and Evidence," in Thomas F. Cooley (ed.) *Frontiers of Business Cycle Research*, Princeton University Press, Princeton, 331-56.
 - * Corsetti Dedola and Leduc [DSGE models with high exchange rate volatility and low pass-through](#), with Luca Dedola and Sylvain Leduc, REVISED MARCH 2006. International Finance Discussion Papers of the Federal Reserve Board, no. 845; CEPR dp 5377
 - CKM
 - Corsetti and Pesenti, "[Endogenous Pass-through and Optimal Monetary Policy: A Model of Self-validating Exchange Rate Regimes](#)", mimeo
 - * Corsetti and Dedola [Macroeconomics of International Price Discrimination. Old version](#) with longer discussion of multiple equilibria
 - Engel Devereux and Storgaard [Endogenous Exchange Rate Pass-Through when Nominal Prices are Set in Advance](#), *Journal of International Economics*

Lecture 8. International transmission in models with inefficient consumption risk sharing

- Theoretical implications of the Backus Smith anomaly
- Wealth effects, and macroeconomic dynamics

- * Corsetti, Giancarlo, Luca Dedola and Sylvain Leduc "[International Risk Sharing and the Transmission of Productivity Shocks](#)", mimeo, 2004 (new version 2006)
- Monacelli Perotti Fiscal Policy, Trade Balance and the Real Exchange, Rate: Implications for International Risk Sharing, mimeo 2006

Lecture 9. Macroeconomics of market dynamics

- Models with firm entry and adjustment at the extensive margin
- International transmission and extensive margins
 - Bergin and Corsetti [Towards a theory of firm entry and stabilization policy](#), October 2005. NBER wp 11821, CEPR dp 53
 - Corsetti Martin and Pesenti [Productivity spillovers, terms of trade and the 'home market effect'](#), [CEPR DP 4964](#) [NBER WP 11165](#)
 - Fabio Ghironi and Marc J. Melitz (Harvard University), "[International Trade and Macroeconomic Dynamics with Heterogeneous Firms](#)" QJE 2005

Lecture 10. Currency and financial crises: where do we stand?

- Corsetti Guimaraes and Roubini [International Lending of Last Resort and Moral Hazard: a Model of IMF's catalytic finance](#) 2006. Journal of Monetary Economics
- Corsetti and Mackowiak [Fiscal Imbalances and the Dynamics of Currency Crises](#) 2006 European Economic Review

The following books will be often referred to:

- M. Obstfeld and K. Rogoff "Foundations of International Macroeconomics," MIT Press, 1996
(OR) *Solutions to exercises are posted in the homepage of this book: [Foundations of International Macroeconomics](#)*

Other relevant books:

- M. Woodford, "Interest and Prices", Princeton University Press, 2002.
- G.Grossman and K. Rogoff, eds., "Handbook of International Economics," vol. III. Amsterdam:North-Holland, 1995 (**HIE III**)
- Frederick Van Der Ploeg, ed. "The Handbook of International Macroeconomics", Blackwell

Economics Handbooks, 1994(**HIM**)

- L. Ljungqvist and T. Sargent "Recursive Macroeconomic Theory," MIT Press, 2000.
- Huang C.-F. and R. Litzenberger, "Foundations of Financial Economics", North Holland, 1988
- Campbell, Loo, MacKinlay, "The Econometrics of Financial Markets", Princeton University Press 1997.
- Allen and Gale, "Comparing Financial System", MIT press, 2000

Information online: A good source of references is [the Global Macro Homepage by Nouriel Roubini](#).

Classic reference book:

Dornbusch, R. Open Economy Macroeconomics. Basic Books, Inc. Publishers, 1980.

Frenkel, J. and A. Razin, Fiscal Policies in the World Economy. (Cambridge, Massachusetts: MIT Press).

Jones, R., and P. Kenen, eds., Handbook of International Economics, Vol. I and II (Amsterdam: North Holland, 1985).

Mundell, R., International Economics, Macmillan, 1968.

[Corsetti's homepage](#)
