Econ 265
International Macroeconomics
Fall 2009
MW 9.00-10.50, Landau 206

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International Macroeconomics

Course Outline: This is a second-year graduate class. I will begin by reviewing the standard frictionless model, and a series of papers that summarize the evidence of departures from the predictions of this baseline. Then I will turn to potential explanations for these departures, summarized (mainly) under the headings of frictions in asset markets, and frictions in goods markets. The goal of the class is first, to give you an up-to-date overview of the literature, and second, to get you started on your own research.
Prerequisites: 202, 203, 204, 210, 211, 212
Textbook: I will not follow any textbook closely. However several assigned readings will be taken from the following textbooks:

> Obstfeld, M. and K. Rogoff (1996), *Foundations of International Macroeconomics*, MIT Press (abbreviated OR).
>
> Ljungqvist, L. and T. Sargent (2004), *Recursive Macroeconomic Theory*, 2nd Edition, MIT Press (abbreviated LS).

A list of references for the topics covered in class is provided below. Starred items will be covered in detail. Apart from those taken from the two textbooks, all items on the list are available in electronic format.
Assessment: Your grade will be based on five problem sets and a short paper, to be presented in the last class of the quarter. I will provide more details on what I want from this paper in class. I also recommend that you attend the Macro seminar on Mondays, 3.30-5.00 in Room 315. Although the focus of many of the macro seminars this quarter is straight macro, there is considerable overlap with International Macro.
Course Organization: Except when announced otherwise, we will meet as announced. I will have office hours on Tuesdays, 10am-12pm. I hope to put lecture notes on Coursework after each class, though I apologize in advance for any delays.

Reference List

1 Standard frictionless model

1. Lucas, Robert E. (1982),"Interest Rates and Currency Prices in a Two-Country World," *Journal of Monetary Economics* 10, 335-60.

2. OR Chapter 5.

3. *LS Chapter 8.

1.1 Facts and puzzles

1. *Backus, D. K., P. J. Kehoe and F. E. Kydland (1992): "International Real Business Cycles," *Journal of Political Economy*, Vol. 100, pp. 745-775.

2. Baxter, M. and M. Crucini (1993), "Explaining Saving-Investment Correlations," American Economic Review 83 (3), 416-436.

3. *Obstfeld, M. and K. Rogoff (2000). "The Six Major Puzzles in International Macroeconomics: Is There a Common Cause?" *National Bureau of Economic Research Macroeconomics Annual*: 339-389.

1.2 Multiple goods and other generalizations

1. Baxter, M. and U. J. Jermann (1997). "The International Diversification Puzzle is Worse Than You Think." *American Economic Review* 87(1): 170-180.

2. *Cole, H. L. and M. Obstfeld (1991): "Commodity Trade and International Risk Sharing," *Journal of Monetary Economics*, Vol. 28, pp. 3-24.

2 Frictions in asset markets

2.1 Testing for frictions in asset markets

1. *Heathcote, J. and F. Perri (2002), "Financial Autarky and International Business Cycles," *Journal of Monetary Economics* 49 (3), 601-627.

2. Kollmann, R. (1995), "Consumption, Real Exchange Rates and the Structure of International Asset Markets," *Journal of International Money and Finance* 14 (2), 191-211.

3. *Lewis, K. K. (1996), "What Can Explain the Apparent Lack of International Consumption Risk Sharing?" *Journal of Political Economy* 104,(2), 267-297.

4. *Townsend, R. (1994), "Risk and Insurance in Village India," *Econometrica* 62 (3), 539-591.

5. Van Wincoop, E. (1995), "Regional Risksharing," *European Economic Review* 37, 1545-1567

2.2 Costs of asset market frictions

1. *Gourinchas, P.-O. and O. Jeanne (2006), "The Elusive Gains from International Financial Integration," *Review of Economic Studies* 73, 1-27.

2. *Lucas, R. (1990), "Why Doesn't Capital Flow from Rich to Poor Countries?" *American Economic Review* 80 (2), 92-96.

3. Obstfeld, M. (1994), "Risk-Taking, Global Diversification and Growth," *American Economic Review* 84 (5), 1310-1329.

4. *Tesar, L. (1995), "Evaluating the Gains from International Risksharing," *Carnegie-Rochester Conference Series on Public Policy* 42, 95-143.

5. Van Wincoop, E. (1994), "Welfare Gains from International Risksharing," *Journal of Monetary Economics* 34, 175-200.

2.3 Asymmetric information

1. Abraham, A. and N. Pavoni (2005), "The Efficient Allocation of Consumption Under Moral Hazard and Hidden Access to the Credit Market," *Journal of the European Economic Association* 3, 370-381.

2. Atkeson, A. (1991): "International Lending with Moral Hazard and Risk of Repudiation," *Econometrica*, Vol. 59, pp. 1069-89.

3. Atkeson, A. and R. Lucas (1992), "On Efficient Distribution With Private Information," *Review of Economic Studies* 59, 427-453.

4. Attanasio, O. and N. Pavoni (2006), "Risk Sharing in Private Information Models With Asset Accumulation," mimeo.

5. Cole, H. and N. Kocherlakota (2001), "Efficient Allocations with Hidden Income and Hidden Storage," *Review of Economic Studies* 68 (3), 523-542.

6. *Gertler, M. and K. Rogoff (1990): "North-South Lending and Endogenous Domestic Capital Market Inefficiencies," *Journal of Monetary Economics*, Vol. 26, pp. 245-266.

7. Karaivanov, A. and R. Townsend, (2007), "Firm Dynamics and Finance: Distinguishing Information Regimes," mimeo.

8. Ligon, E. (1998), “Risk Sharing and Information in Village Economies,” *Review of Economic Studies* 65, 847-864.

9. LS Chapter 19.

10. *OR Chapter 6.

11. Thomas, J. P. and T. Worrall (1990): “Income Fluctuation and Asymetric Information: An Example of a Repeated Principal-Agent Problem,” *Journal of Economic Theory*, Vol. 51, pp. 367-390.

2.4 Exogenous incompleteness, partial equilibrium

1. Aguiar, M. and G. Gopinath (2006), “Emerging Market Business Cycles: The Cycle is the Trend,” *Journal of Political Economy* forthcoming.

2. *Baxter, M. (1995). “International Trade and Business Cycles,” *Handbook of International Economics*. G. M. Grossman and K. Rogoff. Amsterdam, North Holland. 3.

3. Baxter, M. and M. Crucini (1995), “Business Cycles and the Asset Structure of Foreign Trade,” *International Economic Review* 36 (4), 821-853.

4. Cole, H. (1988), “Financial Structure and International Trade,” *International Economic Review* 29 (2), 237-259.

5. Ghironi, F. (2006), “Macroeconomic Interdependence Under Incomplete Markets,” *Journal of International Economics* 70, 428-450.

6. Kollmann, R. (1996) “Incomplete Asset Markets and the Cross-Country Consumption Correlation Puzzle,” *Journal of Economic Dynamics and Control* 20, 945-961

7. *Mendoza, E. G. (1991). ”Real Business Cycles in a Small Open Economy.” *American Economic Review* 81(4): 797-818.

8. Schmitt-Grohé, S. and M. Uribe (2003), “Closing Small Open Economy Models,” *Journal of International Economics* 61, 163-185.

2.5 Exogenous incompleteness, general equilibrium

1. *Aiyagari, S. R. (1994). ”Uninsured Idiosyncratic Risk and Aggregate Saving.” *Quarterly Journal of Economics* 109(3): 659-84.

2. Angeletos, G.-M. (2006), “Uninsured Idiosyncratic Investment Risk and Aggregate Saving,” *Review of Economic Dynamics* forthcoming.

3. Angeletos, G.-M. and L. Calvet (2006), "Idiosyncratic Production Risk, Growth and the Business Cycle," *Journal of Monetary Economics* 53 (6).

4. Huggett, M. (1993): "The Risk-Free Rate in Heterogeneous-Agent, Incomplete Insurance Economies," *Journal of Economic Dynamics and Control*, Vol. 17, pp. 953-969.

5. *Krusell, Per and Anthony Smith (1998): Income and Wealth Heterogeneity in the Macroeconomy, *Journal of Political Economy*, 106(5), 867-896.

6. LS, Chapters 16 and 17.

7. *Mendoza, E., V. Quadrini and J.-V. Ríos-Rull (2007), "Financial Integration, Financial Deepness and Global Imbalances," mimeo.

2.6 Exogenous incompleteness, endogenous borrowing constraint

1. Bai, Y. and J. Zhang (2006), "Solving the Feldstein-Horioka Puzzle With Financial Frictions," mimeo.

2. Krueger, D. and F. Perri (2006), "Does Income Inequality Lead to Consumption Inequality: Evidence and Theory," *Review of Economic Studies* 73, 163-193.

3. Zhang, H. H. (1997): "Endogenous Borrowing Constraints with Incomplete Markets," Journal of Finance, Vol. 52, pp. 2187-2209.

2.7 One-way limited enforcement

1. Amador, M. (2006), "A Political Model of Sovereign Debt Repayment," mimeo.

2. *Bulow, J. and K. Rogoff (1989), "Sovereign Debt: Is to Forgive to Forget?," *American Economic Review*, Vol. 79, pp. 43-50.

3. Bulow, J. and K. Rogoff (1989): "A Constant Recontracting Model of Sovereign Debt," *Journal of Political Economy*, Vol. 97, pp. 155-178.

4. Cole, H. and P. Kehoe, 1997. "Reviving Reputation Models of International Debt," Federal Reserve Bank of Minneapolis Quarterly Review, Winter.

5. Eaton, J. and R. Fernandez, (1995), "Sovereign Debt," in *Handbook of International Economics*. G. Grossman and K. Rogoff, eds. Amsterdam: North Holland, 2031-2077.

6. *Eaton, Jonathan, and Mark Gersovitz, "Debt with Potential Repudiation: Theoretical and Empirical Analysis," *Review of Economic Studies*, v. XLVIII, 289-309, 1981.

7. LS Chapter 19

8. *OR Chapter 6

9. Thomas, Jonathan & Worrall, Tim (1994), "Foreign Direct Investment and the Risk of Expropriation," *Review of Economic Studies*, 61(1), 81-108.

10. Worrall, T. (1990): "Debt with Potential Repudiation," *European Economic Review*, Vol. 34, pp. 1099-1109.

2.8 Default in equilibrium

1. *Aguiar, M. and G. Gopinath (2006), "Defaultable Debt, Interest Rates and the Current Account," *Journal of International Economics* 69 (1), 64-83.

2. *Arellano, Cristina (2006) "Default Risk and Income Fluctuations in Emerging Economies," mimeo.

3. Chatterjee, S., D. Corbae, M. Nakajima and J.-V. Ríos-Rull (2005), "A Quantitative Theory of Unsecured Consumer Credit With Risk of Default," mimeo

4. Livshitz, I., J. Magee and M. Tertilt (2007), "Consumer Bankruptcy - A Fresh Start," *American Economic Review* forthcoming.

5. OR Chapter 6

6. Reinhart, C. and K. Rogoff (2004), "Serial Default and the Paradox of Rich to Poor Capital Flows," *American Economic Review P&P* 94 (2), 52-58.

7. Reinhart, C., K. Rogoff and M. Savastano, (2003), "Debt Intolerance," *Brookings Papers on Economic Activity*, Spring 2003 (1), 1-74.

8. Wright, M. and M. Tomz, (2006), "Do Countries Default in Bad Times?" *Journal of the European Economic Association*, forthcoming.

9. *Yue, V. (2006), "Sovereign Default and Debt Renegotiation," mimeo.

10. Zame, W. (1993), "Efficiency and the Role of Default When Security Markets Are Incomplete," *American Economic Review* 83 (5).

2.9 Two-way limited enforcement

1. Albarran, P. and O. Attanasio (2005), "Empirical Implications of Limited Commitment: Evidence from Mexican Villages," mimeo.

2. Alvarez, F. and U. Jermann, "Efficiency, Equilibrium and Asset Pricing With Risk of Default," *Econometrica* 68, 775-797.

3. Kehoe, T. and D. Levine (1993), "Debt-Constrained Asset Markets," *Review of Economic Studies* 60 (4),865-888.

4. *Kehoe, P. and F. Perri (2002), "International Business Cycles With Endogenous Incomplete Markets," *Econometrica* 70 (3), 907-928.

5. Kletzer, K. M. and B. D.Wright (2000): "Sovereign Debt as Intertemporal Barter," *American Economic Review*, Vol. 90, pp. 621-639.

6. Kocherlakota (1996), "Implications of Efficient Risk Sharing Without Commitment," *Review of Economic Studies* 63 (4), 595-609.

7. Ligon, E., J. Thomas and T. Worrall (2000), "Mutual Insurance, Individual Savings and Limited Commitment," *Review of Economic Dynamics* 3(2), 216-246.

8. Ligon, E., J. Thomas and T. Worrall (2002), "Informal Insurance Arrangements With Limited Commitment: Theory and Evidence from Village Economies," *Review of Economic Studies* 69, 209-244.

9. *LS Chapter 20.

10. OR Chapter 6.

2.10 Models with credit frictions

1. Aiyagari, R. and M. Gertler (1999), "Overreaction of Asset Prices in General Equilibrium," *Review of Economic Dynamics* 2, 3-35.

2. Arellano, C. and E. Mendoza (2003), "Credit Frictions and Sudden Stops in Small Open Economies: An Equilibrium Business Cycle Framework for Emerging Market Crises," in *Dynamic Macroeconomic Analysis: Theory and Policy in General Equilibrium*, S. Altug, J. Chadha and C. Nolan (eds.), Cambridge University Press.

3. Bernanke, B. and M. Gertler (1989), "Agency Costs, Net Worth and Business Fluctuations," *American Economic Review* 79 (1), 14-31.

4. Bernanke, B., M. Gertler and S. Gilchrist (1999), "The Financial Accelerator in a Quantitative Business Cycle Framework," *Handbook of Macroeconomics.*

5. Caballero, R. and A. Krishnamurthy (2001), "International and Domestic Collateral Constraints in a Model of Emerging Market Crises," *Journal of Monetary Economics* 48, 513-548.

6. Chari, V., P. Kehoe and E. McGrattan (2005), "Sudden Stops and Output Drops," *American Economic Review P&P* 95 (2), 381-387.

7. Gertler, M., S. Gilchrist and F. Natalucci (2007), "External Constraints on Monetary Policy and the Financial Accelerator," *Journal of Money Credit and Banking*

8. Kiyotaki, N. and J. Moore (1997), "Credit Cycles," *Journal of Political Economy* 105 (2), 211-248.

9. Mendoza, E. and K. Smith (2006), "Quantitative Implications of a Debt-Deflation Theory of Sudden Stops and Asset Prices," *Journal of International Economics* 70 (1), 82-114.

10. Mendoza, E. (2006), "Endogenous Sudden Stops in a Business Cycle Model with Collateral Constraints," mimeo.

11. Neumeyer, P. and P. Perri (2005), "Business Cycles in Emerging Economies: The Role of Interest Rates," *Journal of Monetary Economics* 52, 345-380.

2.11 Transactions costs and limited participation

1. Alvarez, F., A. Atkeson and P. Kehoe (2005), "Time-Varying Risk, Interest Rates and Exchange Rates in General Equilibrium," mimeo.

2. Caballero, R., E. Farhi, and P.O. Gourinchas, 2006. "An equilibrium model of "Global Imbalances" and low interest rates," NBER WP 11996.

3. Heaton, J. and D. Lucas (1996): "Evaluating the Effects of Incomplete Markets on Risk Sharing and Asset Pricing," *Journal of Political Economy*, Vol. 104, pp. 443-487.

4. Mankiw, N. G. and S. Zeldes (1991), "The Consumption of Stockholders and Non-Stockholders," *Journal of Financial Economics* 29, 97-112.

5. Martin, P. and H. Rey (2000), "Financial Integration and Asset Returns," *European Economic Review* 44: 1327-1350.

6. Martin, P. and H. Rey (2004), "Financial Super-Markets: Size Matters for Asset Trade," *Journal of International Economics* 64 (2), 335-361.

7. Martin, P. and H. Rey (2006), "Financial Globalization and Emerging Markets: With or Without Crash?" *American Economic Review* forthcoming.

3 Frictions in goods markets

3.1 Surveys

1. Froot, K. and K. Rogoff (1995), "Perspectives on PPP and Long-Run Real Exchange Rates," in *Handbook of International Economics.* G. Grossman and K. Rogoff, eds. Amsterdam: North Holland, 1647-1688.

2. Goldberg, P. and M. Knetter (1997), "Goods Prices and Exchange Rates: What Have We Learned," *Journal of Economic Literature* 35, 1243-1272.

3. Rogoff, K. (1996), "The Purchasing Power Parity Puzzle," *Journal of Economic Literature* 34, 647-668.

4. Taylor, A. and M. Taylor (2004), "The Purchasing Power Parity Debate," *Journal of Economic Perspectives* 18 (4), 135-158.

3.2 Testing for frictions in goods markets

1. Burstein, A., M. Eichenbaum and S. Rebelo, 2004. "Large Devaluations and The Real Exchange Rate," NBER WP No. 10986.

2. Crucini, M., Telmer, C. and M. Zachariadis, (2005), "Understanding European Real Exchange Rates," *American Economic Review* 95, 724-738.

3. Engel, C. and J. Rogers (1996), "How Wide is the Border?" *American Economic Review* 86, 1112-1125.

4. Goldberg, P. and F. Verboven (2005), "Market Integration and Convergence to the Law of One Price: Evidence from the European Car Market," *Journal of International Economics* 65 (2005), 49-73.

5. Gopinath, G. and R. Rigobon (2006), "Sticky Borders," mimeo.

6. Imbs, J., H. Mumtaz, M. Ravn and H. Rey, (2005), "PPP Strikes Back: Aggregation and the Real Exchange Rate," *Quarterly Journal of Economics* 120 (1), 1-43.

7. Meese, R. and K. Rogoff (1983), "Empirical Exchange Rate Models of the Seventies: Do They Fit Out of Sample?" *Journal of International Economics* 14, 3-24.

8. Mussa, M. (1986), "Nominal Exchange Rate Regimes and the Behavior of Real Exchange Rates: Evidence and Implications," *Carnegie-Rochester Conference Series on Public Policy* 25, 117-214.

9. Parsley, D. and S.-J. Wei, (1996), "Convergence to the Law of One Price Without Trade Barriers or Currency Fluctuations," *Quarterly Journal of Economics* 111 (4), 1211-1236.

3.3 Exogenously non-traded goods

1. *Backus, D. K. and G. W. Smith (1993), "Consumption and Real Exchange Rates in Dynamic Economies with Non-Traded Goods," *Journal of International Economics* 35: 297-316.

2. Baxter, M., U. J. Jermann and R. G. King (1997): "Nontraded Goods, Nontraded Factors, and International Non-Diversification," *Journal of International Economics*, Vol. 44, pp. 211-229.

3. *Engel, C. (1999), "Accounting for US Real Exchange Rate Changes," *Journal of Political Economy* 107 (3), 507-538.

4. OR Chapter 4.

5. Pesenti, P. and E. Van Wincoop (2002): "Can Nontradeables Generate Substantial Home Bias?," *Journal of Money, Credit and Banking*, 34 (1), pp.25-50.

6. Stockman, A. and H. Dellas (1989), "International Portfolio Nondiversification and Exchange Rate Variability," *Journal of International Economics* 26, 271-289

7. *Stockman, A. C. and L. L. Tesar (1995): "Tastes and Technology in a Two-Country Model of the Business Cycle: Explaining International Comovements," *American Economic Review*, Vol. 85, pp. 168-85.

8. Tesar, L. (1992), "International Risk-Sharing and Non-Traded Goods," *Journal of International Economics* 35, 69-89.

3.4 Trade costs

1. James Anderson and Eric van Wincoop (2003), "Gravity With Gravitas," *American Economic Review* 93, p. 170-192

2. Bergin, P. R. and R. Glick (2006), "Endogenous Tradability and Macroeconomic Implications," mimeo.

3. Betts, C. and T. Kehoe (2001), "Tradability of Goods and Real Exchange Rate Fluctuations," mimeo.

4. *Coeurdacier, N. (2009), "Do Trade Costs in Goods Markets Lead to Home Bias in Equities?" *Journal of International Economics*, 77, 86-100.

5. Dumas, B. (1992): "Dynamic Equilibrium and the Real Exchange Rate in a Spatially Separated World," *Review of Financial Studies*, Vol. 5, pp. 153-180.

6. Dumas, B. and R. Uppal (2001): "Global Diversification, Growth and Welfare with Imperfectly Integrated Markets for Goods," *Review of Financial Studies* 14 (1), 277-305.

7. Jonathan Eaton and Samuel Kortum, "Technology, Geography and Trade," *Econometrica* 70 (5), p. 1741-1779

8. Fitzgerald, D. (2006), “Can Trade Costs Explain Why Exchange Rate Volatility Doesn’t Feed Into Consumer Prices?” mimeo.

9. *Fitzgerald, D. (2007), “Trade Costs, Asset Market Frictions and Risk Sharing: A Joint Test,” mimeo.

10. Guibaud, S., (2005), “Optimal Risk Sharing With Unenforceable Contracts and Costly Transfers,” mimeo.

11. Kraay, A. and J. Ventura (2002). ”Trade Integration and Risk Sharing.” *European Economic Review* 46(6): 1023-1048.

12. Mazzenga, E. and M. Ravn (2002). ”International Business Cycles: The Quantitative Role of Transportation Costs.” Center for Economic Policy Research Discussion Paper 3530.

13. Naknoi, K (2006), “Real Exchange Rate Fluctuations, Endogenous Tradablity and Exchange Rate Regimes,” mimeo.

14. Obstfeld, M. and K. Rogoff (2000). ”The Six Major Puzzles in International Macroeconomics: Is There a Common Cause?” *National Bureau of Economic Research Macroeconomics Annual*: 339-389.

3.5 Distribution costs

1. Burstein, A., J. Neves and S. Rebelo (2003), “Distribution Costs and Real Exchange Rate Dynamics During Exchange-Rate Based Stabilizations,” *Journal of Monetary Economics* 50, 1189-1214.

3.6 Sticky prices

1. Bergin, P. (2003), “Putting the New Open Economy Macroeconomics to a Test,” *Journal of International Economics* 60, 3-34.

2. Betts, C. and M. B. Devereux (1996). ”The Exchange Rate in a Model of Pricing-to-Market.” *European Economic Review* 40: 1007-1021.

3. Betts, C. and M. B. Devereux (2000). ”Exchange rate dynamics in a model of pricing-to-market.” *Journal of International Economics* 50: 215-244.

4. Burstein, A., M. Eichenbaum and S. Rebelo (2007), “Modeling Exchange Rate Passthrough After Large Devaluations,” *Journal of Monetary Economics* 54, 346-368.

5. *Chari, V. V., P. J. Kehoe and E. R. McGrattan (2002): “Can Sticky Price Models Generate Volatile and Persistent Real Exchange Rates?” *Review of Economic Studies* 69, 533-563.

6. *Corsetti, Giancarlo and Paolo Pesenti (2001), “Welfare and macroeconomic interdependence,” *Quarterly Journal of Economics* 116 (2) pp 421-445

7. Dornbusch, R., (1976), “Expectations and Exchange Rate Dynamics,” *Journal of Political Economy* 84 (6), 1161-1176.

8. Kollmann, R., (2001), “The Exchange Rate in a Dynamic-Optimizing Business Cycle Model with Nominal Rigidities: A Quantitative Investigation,” *Journal of International Economics* 55, 243-262.

9. *Lane, P. R. (2001). ”The new open economy macroeconomics: a survey.” *Journal of International Economics* 54: 235-266.

10. Midrigan, V., (2006), “International Price Dispersion in State-Dependent Pricing Models,” mimeo.

11. Obstfeld, M. and K. Rogoff (1995). ”Exchange Rate Economics Redux.” *Journal of Political Economy* 103(3): 624-660.

12. OR Chapters 9 and 10,

3.7 Price discrimination

1. Alessandria, G. (2004), ”International Deviations from the Law of One Price: The Role of Search Frictions and Market Share,” *International Economic Review* (November 2004), pp. 1263-91.

2. Atkeson, A. and A. Burstein (2008), “Pricing-to-Market, Trade Costs and International Relative Prices,” *American Economic Review* 98 (5), 1998-2031.

3. Bergin, P. and R. Feenstra (2001), “Pricing-to-Market, Staggered Contracts and Real Exchange Rate Persistence,” *Journal of International Economics* 54, 333-359.

4. Burstein, A. and N. Jaimovich (2009), “Understanding Movements in Aggregate and Product Level Real Exchange Rates,” mimeo.

5. Dornbusch, R., 1987. “Exchange Rates and Prices,” *American Economic Rerview* 77 (1), pp. 93 – 106, March.

6. Drozd, L. and J. Nosal (2008), “Understanding International Prices: Customers as Capital,” mimeo.

7. Fitzgerald, D. and S. Haller (2009), “Pricing-to-Market: Evidence From Plant-Level Prices,” mimeo.

8. Gust, C., S. Leduc and N. Sheets (2009), “The Adjustment of Global External Balances: Does Partial Exchange Rate Pass-Through to Trade Prices Matter?” *Journal of International Economics* forthcoming.

9. Knetter, M. (1989), “Price Discrimination by US and German Exporters,” *American Economic Review* 79 (1), 198-210.

10. Knetter, M. (1993), “International Comparisons of Pricing-to-Market Behavior,” *American Economic Review* 83 (3), 473-486.

11. Krugman, P., 1986. “Pricing to Market When the Exchange Rate Changes,” NBER WP No. 1926.

4 Firm heterogeneity

1. Alessandria, G. and H. Choi (2005), “Do Sunk Costs of Exporting Matter for Net Export Dynamics?” *Quarterly Journal of Economics* forthcoming.

2. Campbell, J., (1998), “Entry, Exit, Embodied Technology and Business Cycles,” *Review of Economic Dynamics* 1, 371-408.

3. Chaney, T., (2007), “Distorted Gravity: The Intensive and Extensive Margins of International Trade,” mimeo.

4. Ghironi, F. and M. Melitz (2005), “International Trade and Macroeconomic Dynamics with Heterogeneous Firms,” *Quarterly Journal of Economics* 120, 865-915.

5. Ruhl, K. and J. Willis (2009), “New Exporter Dynamics,” mimeo.

5 Financial Puzzles

1. *Brandt, M. W., J. H. Cochrane, and P. Santa-Clara. (2006), “International Risk Sharing is Better Than You Think, or Exchange Rates are Too Smooth,” *Journal of Monetary Economics* 53, 671-698.

2. Burnside, C., M. Eichenbaum, I. Kleshchelski and S. Rebelo (2006), “The Returns to Currency Speculation,” mimeo.

3. Coeurdacier, N. and P.-O. Gourinchas (2008), “When Bonds Matter: Home Bias in Goods and Assets,” mimeo.

4. Lewis, K. K. (2000). ”Why do Stocks and Consumption Imply Such Different Gains from International Risk Sharing?” *Journal of International Economics* 52(1): 1-35.

5. *Lustig, H. and A. Verdelhan (2006), "The Cross-Section of Foreign Currency Risk Premia and Consumption Growth Risk," *American Economic Review* forthcoming.

6 Currency crises

1. Krugman, P. (1979), "A Model of Balance-of-Payments Crises," *Journal of Money, Credit and Banking* 11, 311-325.

2. Morris, S. and H. S. Shin, 1998. "Unique Equilibrium in a Model of Self-Fulfilling Currency Attacks," American Economic Review 88, pp. 587-97, June.

3. Obstfeld, M. (1996), "Models of Currency Crises with Self-Fulfilling Features," *European Economic Review* 40, 1037-1047.

7 Information frictions

1. Bacchetta, P. and E. van Wincoop (2006), "Can Information Heterogeneity Explain the Exchange Rate Determination Puzzle?" *American Economic Review* 96, 552-576.

2. Mondria, J. and T. Wu (2006), "The Puzzling Evolution of Home Bias, Information Processing and Financial Openness," mimeo.

3. Van Nieuwerburgh, S.and L. Veldkamp (2007), "Information Immobility and the Home Bias Puzzle," mimeo.

Schedule

1. Monday 21st September. Introduction. Baseline multi-country endowment model. **Reading:** LS Chapter 8.

2. Wednesday 23rd September. Labor supply and investment in a 2-country world. Facts. **Reading:** Backus, Kehoe, Kydland (1992); Obstfeld, Rogoff (2000).

3. Monday 28th September. Multiple goods. Non-separable leisure. Taste shocks. Different preferences. **Reading:** Cole and Obstfeld (1991).

4. Wednesday 30th September. Are there frictions in asset markets? Costs of frictions. **Reading:** Heathcote and Perri (2002); Tesar (1995); Lucas (1990); Gourinchas and Jeanne (2006); Townsend (1994); Lewis (1996).

5. Monday 5th October. Asymmetric information. **Reading:** OR Chapter 6; Gertler and Rogoff (1990).

6. Wednesday 7th October. Exogenous asset market incompleteness, partial equilibrium. **Reading:** Mendoza (1991); Schmitt-Grohé and Uribe (2003); Aguiar and Gopinath (2006).

7. Monday 12th October. Exogenous incompleteness, general equilibrium. **Reading:** Aiyagari (1994); Krusell and Smith (1998); Mendoza, Quadrini and Rios-Rull (2007).

8. Wednesday 14th October. One-way limited enforcement. **Reading:** OR Chapter 6, Eaton and Gersovitz (1981); Bulow and Rogoff (1989a).

9. Monday 19th October. Default in equilibrium. **Reading:** Aguiar and Gopinath (2006); Arellano (2006); Yue (2006).

10. Wednesday 21st October. Two-way limited enforcement. **Reading:** LS Chapter 20; Kehoe and Perri (2002).

11. Monday 26th October. Models with a financial sector I. **Reading:** TBA

12. Wednesday 28th October. Models with a financial sector II. **Reading:** TBA

13. Monday 2nd November. Evidence of frictions in goods markets. **Reading:** TBA.

14. Wednesday 4th November. Exogenously non-traded goods. **Reading:** Backus and Smith (1993); Stockman and Tesar (1995).

15. Monday 9th November. Trade costs. **Reading:** Obstfeld and Rogoff (2000); Fitzgerald (2007); Coeurdacier (2009).

16. Wednesday 11th November. Sticky prices. **Reading:** Chari, Kehoe and McGrattan (2002); Corsetti and Pesenti (2001).

17. Monday 16th November. Price discrimination. **Reading:** Fitzgerald and Haller (2009); Atkeson and Burstein (2008); Drozd and Nosal (2008).

18. Wednesday 18th November. Heterogeneous firms. **Reading:** Alessandria and Choi (2005); Ghironi and Melitz (2005).

19. Monday 30th November. International finance puzzles - the forward premium and the equity premium. **Reading:** Brandt, Cochrane and Santa-Clara (2006); Lewis (2000), Lustig and Verdelhan (2006).

20. Wednesday 2nd December. Presentations.

Assignments

1. Problem set 1. Due Wednesday 30th September

2. Problem set 2. Due Wednesday 21st October

3. Problem set 3. Due Monday 2nd November

4. Problem set 4 (longer). Due Wednesday 2nd December

5. Problem set 5. Due mid-November, date TBA

6. Short paper. Presentation Wednesday 2nd December. “Final” version due Friday 11th December.