

ECONOMICS 712-007
INTERNATIONAL MACROECONOMICS WITH INCOMPLETE MARKETS & FINANCIAL FRICTIONS
TUESDAYS, 2:00-5:00PM, PCPSE 625

This course studies International Macroeconomics from a perspective that emphasizes the role of financial frictions and incomplete asset markets and the use of quantitative methods for theoretical analysis and model evaluation. The course blends elements of Real Business Cycle Theory, International Finance and Asset Pricing Theory and relies heavily on Recursive Macroeconomic Theory. A thorough understanding of first-year Ph.D. Macro and Micro material, particularly stochastic dynamic programming and general equilibrium analysis, are critical. Knowledge of computational methods and software used in Macro modeling is also useful, particularly global methods for solving incomplete markets models. Familiarity with principles of International Macroeconomics is helpful but not required.

The course begins with a review of canonical perfect-foresight and RBC models of a small open economy, and an analysis of the tradeoffs involved in solving open economy models with incomplete markets using local v. global methods. The course explores then open-economy models designed for the quantitative study of financial crises, sovereign default, and sudden reversals of capital inflows driven by financial frictions. We also study normative issues such as optimal policy to tackle inefficiencies present in a large class of models with credit constraints, interactions between monetary and financial policies, and models in which financial innovation interacts with Bayesian learning. The course then moves on to relax the representative agent and small country assumptions by introducing heterogeneous agents in a multi-country setting. We study how open-economy, incomplete-markets models with heterogeneous agents shed light on key issues like the effects of financial globalization, default on domestic public debt, and financial contagion. In addition, we explore a two-country model with distortionary taxation to analyze public debt sustainability and the macroeconomic effects of tax reforms.

Grading: The course is graded with a final exam (40%), a term paper (30%), and three components of in-class participation (30% combined), which include (i) a presentation of the work related to the term paper, (ii) a presentation of a research paper assigned in class, and (iii) class attendance/participation. However, the term paper is a course requirement, without it the final grade will default to a D.

Term paper policies: The term paper should be related to the subject matter of the course, but broader topics in Macro, Finance, and International Macro as well as papers prepared concurrently for related courses may also be acceptable. The paper must be original research and must apply numerical methods. Topics for the term paper need to be submitted for approval in a two-page (maximum) outline no later than March 6th, 2020. Presentations of term papers will take place at dates to be determined near the end of the term. These presentations cover the idea, motivation, model and preliminary findings. The final draft must not exceed 20 double-spaced pages in a 12-point font and 1.5-inch margins (no exceptions). The expectation is that the final paper will not be as polished as a piece ready for journal submission by the due date, and the due date itself will be extended beyond the end of the term. The papers are due no later than June 15th, 2020. Following department guidelines, initial course grades will be posted as B- in lieu of “incomplete,” but this B- should be interpreted as identical to an “incomplete,” and not conveying any information about the final grade. Final grades will be issued after the papers are graded.

Reading list: The course is based on journal articles and working papers. The reading list is intentionally comprehensive. Each section separates “main readings” closely related to the lectures from “additional references” intended for further reading if you are interested in a particular topic.

Reference Texts:

- SL** Ljungqvist, L. & Sargent, T. J., *Recursive Macroeconomic Theory*, MIT Press, 2012.
CV Végh, C.A. *Open Economy Macroeconomics in Developing Countries*, MIT Press, 2013
US Uribe, M. and Schmitt-Grohe, S. *Open Economy Macroeconomics*, Princeton Univ. Press, 2017
OR Obstfeld, M. & Rogoff, K. *Foundations of Intl. Macroeconomics*, MIT Press 1996.
RR Reinhart, C. M. & Rogoff, K., *This Time is Different: Eight Centuries of Financial Folly*, Princeton Univ. Press.

I.- Workhorse Models & Limitations of Local Solution Methods

Main readings:

- Blanchard, O. and Fischer S. *Lectures on Macroeconomics*, section 2.4 and Ch.2 appendix C
Backus, D. "Interpreting Comovements in the Trade Balance and the Terms of Trade," *Journal of International Economics*, 1993.
de Groot, O., C.B Durdu, and E. G. Mendoza, 2019, "Approximately Right?: Global v. Local Methods for Open-Economy Models with Incomplete Markets," NBER Working Paper WP26426, <https://www.sas.upenn.edu/~egme/wp/w26426.pdf> .
Mendoza, E. G., "The Terms of Trade, the Real Exchange Rate and Economic Fluctuations," *International Economic Review*, 1995. <http://www.sas.upenn.edu/~egme/pp/IER95.pdf>
Mendoza, E. G, and S. Villalvazo, "FiPit: A Simple, Fast Global Method for Solving Models with Two Endogenous States & Occasionally Binding Constraints," *Review of Economic Dynamics*, forthcoming, 2020, available also at <https://www.sas.upenn.edu/~egme/wp/w26310.pdf>

SL chs. 8, 16 and 17 (indexed from the second edition)

Reference: CV Chs. 1, 3, 4 US Chs. 1-8 OR 1.1, 1.2, 1.3, 2.1, 2.2, and ch. 5

Additional references:

- Aguiar M. and G. Gopinath, 2007, "Emerging Market Business Cycles: The Cycle Is the Trend," *Journal of Political Economy* 115(1): 69-102.
Boz, E., C. Daude, and C. B. Durdu, 2011, "Emerging Market Business Cycles Revisited: Learning about the Trend," *Journal of Monetary Economics*, vol. 58(6), pages 616-631
Cole, H.L. and Obstfeld, M., "Commodity Trade and International Risksharing," *J. of Mon. Economics*, 1991.
Fernandez, A., S. Schmitt-Grohe and M. Uribe, 2017, "World shocks, world prices, and business cycles: An empirical investigation," *J. of International Econ*, vol. 108, pages S2-S14.
Garcia-Cicco, J., R. Pancrazi, and M. Uribe, 2010, "Real Business Cycles in Emerging Countries?" *American Economic Review*, 100(5): 2510-31.
Mendoza, E. "Real Business Cycles in a Small Open Economy," *American Economic Review*, 1991, <https://www.sas.upenn.edu/~egme/pp/mendoza1991.pdf>
Mendoza, E., "Capital Controls and the Gains from Trade in a Business Cycle Model of a Small Open Economy," *IMF Staff Papers*, 1991, <https://www.sas.upenn.edu/~egme/pp/Capitalcontrols1991.pdf>
Mendoza, E., G. "The Robustness of Macroeconomic Indicators of Capital Mobility," in *Capital Mobility*, L. Leiderman and A. Razin eds., Cambridge Univ. Press., 1994. Available at: <http://www.sas.upenn.edu/~egme/pp/sapir.pdf>
Nicolini, J. P., C. Hevia and J. Ayres, 2015, "Real Exchange Rates and Commodity Prices," mimeo, Federal Reserve Bank of Minneapolis.
Neumeyer, P.A. and F. Perri, "Business Cycles in Emerging Economies: The Role of Interest Rates," *JME*, 2005.
Schmitt-Grohe, S., and M. Uribe (2003), "Closing small open economies," *J. of Int. Econ*, 61, 163-185.
Schmitt-Grohe, S., and M. Uribe (2017), "How Important are Terms of Trade Shocks," *Int. Ec. Rev.*
Uribe, M. and Z. V. Yue, "Country Spreads and Emerging Countries: Who Drives Whom?," *JIE*, 2006.

II.- Financial Crises, Sudden Stops and Macroprudential Policy

Main readings:

Bianchi, J. , E. Boz and E.G. Mendoza, 2012, “Macroprudential Policy in a Fisherian Model of Financial Innovation,” *IMF Economic Review*, <http://www.sas.upenn.edu/~egme/pp/imfer20129a.pdf>

Bianchi, J. and E.G. Mendoza, 2018, “Optimal, Time-Consistent Macroprudential Policy,” *Journal of Political Economy*, <https://www.sas.upenn.edu/~egme/pp/JPE2018.pdf>, see also the Appendix included in the working paper version available here <http://www.sas.upenn.edu/~egme/wp/w19704.pdf>

Bianchi, J. and E.G. Mendoza, 2015, “Phases of Global Liquidity, Fundamentals News, and the Design of Macroprudential Policy,” BIS Working Paper No. 505 (<http://www.sas.upenn.edu/~egme/wp/work505.pdf>).

Boz, E. and E.G. Mendoza, 2014, “Financial Innovation, the Discovery of Risk, and the U.S. Credit Crisis,” *Journal of Monetary Economics*, (<http://www.sas.upenn.edu/~egme/pp/BozMendozaJME.pdf>).

Carrillo, J., E.G. Mendoza, V. Nuguer, and J. Roldan-Pena, 2020, “Tight Money-Tight Credit: Coordination Failure in the Conduct of Monetary and Financial Policies,” *American Economic Journal: Macroeconomics* , forthcoming, also available as NBER WP no. w23151 (<https://www.sas.upenn.edu/~egme/wp/w23151.pdf>).

Durdu, C.B. and E.G. Mendoza, 2006, “Are Asset Price Guarantees Useful for Preventing Sudden Stops?: A Quantitative Investigation of the Globalization Hazard Moral Hazard Tradeoff,” *Journal of International Economics*. Available at <http://www.sas.upenn.edu/~egme/pp/JIE06Durdu.pdf>

Hernandez, J. and E.G. Mendoza, 2017, “Optimal v. Simple Financial Policy Rules in a Production Economy with “Liability Dollarization”,” *Ensayos sobre Politica Economica*, <https://www.sas.upenn.edu/~egme/pp/HernandezMendoza.pdf>

Mendoza, E.G. and E. Rojas, 2019, “Positive and Normative Implications of Liability Dollarization for Sudden Stops Models of Macroprudential Policy,” *IMF Economic Review*, <https://www.sas.upenn.edu/~egme/pp/MendozaRojas.pdf>

Mendoza, E.G., 2016, “Macroprudential Policy: Promise and Challenges,” NBER WP no. 22868, <http://www.nber.org/papers/w22868>

Mendoza, E.G. and K. Smith, 2006, “Quantitative Implications of a Debt-Deflation Theory of Sudden Stops and Asset Prices,” *Journal of International Economics*, 2006. <http://www.sas.upenn.edu/~egme/pp/JIE06smith.pdf>

Mendoza, E.G., 2008, “Sudden Stops, Financial Crises and Leverage,” *American Economic Review*, Dec. 2010, <http://www.sas.upenn.edu/~egme/pp/CompletePaperRevforDistribution.pdf>; working paper version NBER WP at <http://www.nber.org/papers/w14444>

Mendoza, E. and M. Terrones, “An Anatomy of Credit Booms and their Demise,” NBER Working Paper no. 18379, 2012 Available at <http://www.sas.upenn.edu/~egme/wp/w18379.pdf>.

Reference texts: US Ch. 12 CV Ch. 2, 16, 17, RR

Additional references:

Aoki, K., G. Benigno and N. Kiyotaki, 2016, “Monetary and Financial Policies in Emerging Markets,” mimeo, Princeton University.

Ates, S.T. and F. Saffie, 2014, “Fewer but Better: Sudden Stops, Firm Entry and Financial Selection,” available at <https://economics.sas.upenn.edu/sites/economics.sas.upenn.edu/files/14-043.pdf>

Adrian, T. and H. S. Shin, 2013, “Procyclical Leverage and Value-at-Risk,” *Review of Financial Studies*.

Aghion, P., P. Bacchetta and A. Banerjee, “A Corporate Balance Sheet Approach to Currency Crises,” mimeo, Harvard University, 2002 (also in *European Economic Review*).

Arellano, C., Y. Bai and P. Kehoe, 2012, “Financial Markets and Fluctuations in Volatility,” Minneapolis Fed Staff Report 466, <https://www.minneapolisfed.org/research/sr/sr466.pdf>

Benigno, G., H. Chen, C. Otrok, A. Rebucci & E. Young, 2016, “Optimal Capital Controls or Exchange Rate Policies? A Pecuniary Externality Perspective,” *Journal of Monetary Economics*, v. 84, 147-165

Bernanke, B., M. Gertler, and S. Gilchrist (1999):, “The financial accelerator in a quantitative business cycle model,” in *Handbook of Macroeconomics*, ed. by J. Taylor, and M. Woodford.

Bianchi, J. “Overborrowing and Systemic Externalities in the Business Cycle” *American Economic Review*, 2011.

Borio, C., E. Kharroubi, C. Upper and F. Zampolli, 2016, "Labour reallocation and productivity dynamics: financial causes, real consequences," BIS Working Paper 534, <http://www.bis.org/publ/work534.htm>

Caballero, R. and A. Krishnamurthy, "International and Domestic Collateral Constraints in a Model of Emerging Market Crises," *Journal of Monetary Economics*, 2001.

Calvo, G.A., "Capital Flows and Capital-Market Crises: The Simple Economics of Sudden Stops," *Journal of Applied Economics*, v. 1, pp. 35-54, 1998

Calvo, G. and Mendoza, E.G. "Capital Markets Crises and Economic Collapse in Emerging Markets: An Informational Frictions Approach," *American Economic Review*, May 2000.

Calvo, G. and E.G. Mendoza "Rational Contagion and the Globalization of Securities Markets," *Journal of International Economics*, June 2000, https://www.sas.upenn.edu/~egme/pp/JIE_last.pdf

Calvo, G., Izquierdo, A. and L. Mejia, "On the Empirics of Sudden Stops: The Relevance of Balance-Sheet Effects," mimeo, Inter-American Development Bank, 2004.

Choi, W. G. and D. Cook, "Liability Dollarization and the Bank Balance Sheet Channel," *JIE*, 2003.

Cook, D. and M. Devereux, "Accounting for the East Asian Crisis: A Quantitative Model of Capital Outflows in Small Open Economies," *JIE* 2006.

Farhi, E. and I. Werning, 2016, "A Theory of Macroprudential Policy in the Presence of Nominal Rigidities," *Econometrica*.

Galati, G. and R. Moesnner, 2011, "Macroprudential policy – a literature review," BIS Working Papers No 337.

Galati, G. and R. Moesnner, 2018, "What do we know about the effects of macroprudential policy?," *Economica*, vol. 85, issue 340, 735-770

Gertler, M., S. Gilchrist, and F. Natalucci (2007), "External constraints on monetary policy and the financial accelerator," *Journal of Money Credit and Banking*.

Gertler, M. and N. Kiyotaki, 2015, "Banking, Liquidity and Bank Runs in an Infinite Horizon Economy," *American Economic Review*

Gertler, M. and P. Karadi, 2012, "A Model of Unconventional Monetary Policy," *Journal of Monetary Economics*

Gertler, M. and N. Kiyotaki, 2010, "Financial Intermediation and Credit Policy in Business Cycle Analysis," in *Handbook of Monetary Economics*, B. Friedman and M. Woodford eds., Elsevier, vol. 3, no. 3.

Jermann, U. & V. Quadrini, 2012. "Macroeconomic Effects of Financial Shocks," *AER*, v. 102, no. 1, 238-271.

Korinek A. and Mendoza, E.G., (2014), "From Sudden Stops to Fisherian Deflation: Quantitative Theory and Policy Implications. *Annual Review of Economics*, <http://www.sas.upenn.edu/~egme/wp/w19362.pdf>

Lorenzoni, G. (2008), "Inefficient Credit Booms," *Review of Economic Studies*, 75, 809-833.

Mendoza, E.G. "Real Exchange Rate Volatility and the Price of Nontradables in Sudden-Stop Prone Economies," *Economia*, vol. 6, no. 1, Fall 2005., <https://www.sas.upenn.edu/~egme/pp/EconomiaFall05.pdf>

Mendoza, E.G. "The Benefits of Dollarization when Stabilization Policy Lacks Credibility and Financial Markets are Imperfect," *Journal of Money, Credit, and Banking*, 2001.
https://www.sas.upenn.edu/~egme/pp/draft_jmcb.pdf

Mendoza, E.G. "Credit, Prices, and Crashes: Business Cycles with a Sudden Stop," in *Preventing Currency Crises in Emerging Markets*, ed. by S. Edwards and J. Frankel, Univ. of Chicago Press, 2002, also NBER WP no. w8338, 2001., https://www.sas.upenn.edu/~egme/pp/sudden_stops_draft.pdf

Mendoza, E.G. and Uribe, M. "Devaluation Risk and the Business Cycle Implications of Exchange Rate Management," Carnegie-Rochester Conference Series in Public Policy, 2001. Available at <http://www.sas.upenn.edu/~egme/pp/CRCS00.pdf>

Miranda-Agrippino S, & H. Rey, (2015) "World Asset Markets & the Global Fin. Cycle," NBER WP no. 21722

Stein, Jeremy, "Monetary Policy as Financial-Stability Regulation," *Quarterly Journal of Ec.* 127, no. 1: 57-95.

Schimtt-Grohe, S. and M. Uribe, "Currency Pegs, Downward Nominal Wage Rigidity, Unemployment, and Macro Prudential Policy", http://www.columbia.edu/~mu2166/dnwr_pegs_iu/paper.pdf

III.- Fiscal Policy, Debt Sustainability & Default

Main readings:

Aguiar, M. and G. Gopinath, "Defaultable Debt and Current Account Sustainability," *JIE*, 2006.

Arellano, C., "Default Risk and Income Fluctuations in Emerging Economies," *AER*, 2008
D'Erasmus, P. and E. Mendoza, 2018, "History Remembered: Optimal Sovereign Default on Domestic and External Debt," NBER WP 25073, <https://www.sas.upenn.edu/~egme/wp/w25073.pdf>
D'Erasmus, P. and E. Mendoza, 2016, "Distributional Incentives in an Equilibrium Model of Domestic Sovereign Default," *Journal of the Eur. Ec. Assoc.*, <http://www.sas.upenn.edu/~egme/pp/D%27ErasmusMendozaJEEA.pdf>
D'Erasmus, P., E. Mendoza, and J. Zhang, "What is a Sustainable Public Debt?," 2016, *Handbook of Macroeconomics*, available at http://www.sas.upenn.edu/~egme/wp/HandbookDraft_0413.pdf
Eaton, Jonathan, and Mark Gersovitz, "Debt with Potential Repudiation: Theoretical and Empirical Analysis," *Review of Economic Studies*, v. XLVIII, 289-309, 1981.
Mendoza, E., L. Tesar and J. Zhang, "Saving Europe?: The Unpleasant Arithmetic of Fiscal Austerity in Integrated Economies" available at <http://www.sas.upenn.edu/~egme/wp/w20200.pdf>
Mendoza, E. and Z. V. Yue, 2012 "A General Equilibrium Model of Sovereign Default and Business Cycles," *Quarterly Journal of Economics*, <http://www.sas.upenn.edu/~egme/wp/w13861.pdf>

Reference texts: US Ch. 13, RR, OR. Ch. 6

Additional references:

Aguiar, M., S. Chatterjee, H.L. Cole, and Z. R. Stangebye, 2016, "Quantitative Models of Sovereign Debt Crises," *Handbook of Macroeconomics*.
Aguiar, M., M. Amador, E. Farhi, and G. Gopinath. 2013. "Coordination and Crisis in Monetary Unions," http://scholar.harvard.edu/files/gopinath/files/monetary_union_sep8_2013.pdf
Bi, R., "Debt Dilution and the Maturity Structure of Sovereign Bonds," Ph.D Thesis, UMD, 2008
Bi, R., "'Beneficial' Delays in Debt Restructuring Negotiations," Ph.D Thesis, UMD, 2008.
Bohn, H. 2014, "Low Altruism, Austerity, and Aversion to Default: Are Countries Converging to the Natural Debt Limit?," mimeo, Dept. of Economics, UC Santa Barbara.
Chang, R. and A. Velasco, "Banks, Debt Maturity and Financial Crises," *Journal of International Economics*, June 2000.
Chatterjee, S. and B. Eyigungor, 2012. "Maturity, Indebtedness, and Default Risk," *American Economic Review*, vol. 102(6), pages 2674-99, October.
Chatterjee, S. and B. Eyigungor, 2014. "Debt Dilution and Seniority in a Model of Defaultable Sovereign Debt," mimeo, Research Dept. Federal Reserve Bank of Philadelphia.
Cole, H.L. and T. Kehoe, "A Self Fulfilling Model of Mexico's 1994-95 Debt Crisis," *JIE*, 1996
Cuadra, G. and H. Saprizza, 2008, "Sovereign default, interest rates and political uncertainty in emerging markets" *JIE*, vol. 76, issue 1, 78-88
Cuadra, G. and H. Saprizza, 2010, *Review of Ec. Dynamics* vol. 13, issue 2, 452-469
"Fiscal Policy and Default Risk in Emerging Markets,"
D'Erasmus, Pablo, 2008, "Government Reputation and Debt Repayment in Emerging Economies," Ph.D. Dissertation, Department of Economics, University of Texas-Austin.
Farhi, E. and I. Werning, 2017, "Fiscal Unions," *American Economic Review* 107 (12): 3788-3834.
Hatchondo, J.C., L. Martinez and C. Sosa Padilla, 2016, "Debt dilution and sovereign default risk," *Journal of Political Economy*. vol 124, no. 5: 1383-1422.
Lorenzoni, G. and I. Werning, 2014, "Slow Moving Debt Crises," mimeo, Dept. of Economics, MIT.
Mendoza, E., L. Tesar and J. Zhang, 2014, "Saving Europe?: The Unpleasant Arithmetic of Fiscal Austerity in Integrated Economies," mimeo, Dept. of Economics, Univ. of Pennsylvania
Mendoza, E. and J. Ostry, "International Evidence on Fiscal Solvency: Is Fiscal Policy 'Responsible'?", *Journal of Mon. Econ*, 2008. At: <http://www.sas.upenn.edu/~egme/wp/MendozaOstryJME.pdf>
Mendoza, E. and L. Tesar, "Why Hasn't Tax Competition Triggered a Race to the Bottom? Some Quantitative Lessons from the EU," *JME*, v. 52, no. 1, p. 163-204, 2005.
Mendoza, E. and L. Tesar, "The International Ramifications of Tax Reforms: Supply-Side Economics in a Global Economy," with L. Tesar, *American Economic Review*, March, 1998.

Mendoza, E. and P.M. Oviedo, "Public Debt, Fiscal Solvency & Macroeconomic Uncertainty in Latin America: The Cases of Brazil, Colombia, Costa Rica and Mexico," NBER WP No. 10637, 2004.

Mendoza, E. and P.M. Oviedo, "Fiscal Policy & Macroeconomic Uncertainty in Developing Countries: The Tale of the Tormented Insurer," available at: <http://www.sas.upenn.edu/~egme/wp/w12586.pdf>

Sosa Padilla, C., 2018, "Sovereign Defaults and Banking Crises," JME, Nov., v. 99, pp. 88-105.

Tomz, Michael and Mark Wright, 2007, "Do Countries Default in 'Bad Times'?", mimeo, UCLA

Uhlig, H., 2014, "Sovereign Default Risk and Banks in a Monetary Union," mimeo, Univ. of Chicago.

Wright, Mark L.J., "Creditor Reputations in the Theory of Sovereign Risk," mimeo, Stanford Univ., 2002

Z. V. Yue, "Sovereign Default and Debt Renegotiation," *JIE*, 2010.

IV.- Global Imbalances, Financial Development & Heterogeneous Agents

Main readings:

Azzimonti, M., E. de Francisco, and V. Quadrini, 2012, "Financial Globalization, Inequality and the Raising of Public Debt," <http://www.philadelphiafed.org/research-and-data/publications/working-papers/2012/wp12-6.pdf>

Bengui, J., E. Mendoza and V. Quadrini, (2012), "Capital Mobility and International Sharing of Cyclical Risk," *Journal of Monetary Economics*, <http://www.sas.upenn.edu/~egme/wp/w18372.pdf>

Durdu, C.B., Mendoza, E. and Terrones, M., "Precautionary Demand for Foreign Assets in Sudden Stop Economies: An Assessment of the New Mercantilism," *JDE* 2009, available at http://www.sas.upenn.edu/~egme/wp/Precautionary_durdu_terriones.pdf

Mendoza, E., V. Quadrini, and J. V. Rios-Rull, 2009, "Financial Integration, Financial Development and Global Imbalances," *Journal of Pol. Econ.*, at <http://www.sas.upenn.edu/~egme/pp/JPEreprint.pdf>

Mendoza, E., V. Quadrini, and J. V. Rios-Rull, 2007 "On the Welfare Implications of Financial Globalization without Financial Development," *International Seminar on Macroeconomics Annual*, R. Clarida & F. G. Giavazzi, eds. available at: <http://www.sas.upenn.edu/~egme/pp/Welfarefinancialintegration.pdf>

Mendoza, E. and V. Quadrini, 2010, "Financial Globalization, Financial Crises and Contagion," *Journal of Monetary Economics*, <http://www.sas.upenn.edu/~egme/pp/JME2010.pdf> .

Mendoza, E. and K. Smith 2014, "Financial Globalization, Financial Crises, & the External Portfolio Structure of Emerging Markets," *Scandinavian Journal of Economics*, <http://www.sas.upenn.edu/~egme/wp/w19072.pdf>

Additional references:

Backus, D., Henriksen, E., Lambert, F., & Telmer, C. (2005). "Current Account Fact and Fiction," mimeo NYU.

Benigno, P, "Are Valuation Effects Desirable from a Global Perspective?," NBER WP 12219, 2006.

Bernanke, B. (2005). The global saving glut and the U.S. current account deficit. Speech at the Sandridge Lecture, Virginia Association of Economists, March 10, 2005.

Blanchard, O., Giavazzi, F., and Sa, F. (2005). The U.S. current account deficit and the dollar. NBER Working Paper No. 11137.

Caballero, R. J., Farhi, E., & Gourinchas, P. O., "An Equilibrium Model of "Global Imbalances" and Low Interest Rates," *AER* 2008.

Devereux, M. and A. Sutherland, 2011, "Solving for Country Portfolios in Open Economy Macro Models," mimeo, Dept. of Economics, Univ. of British Columbia

Engel, C. and Rogers, J. H. (2006). The U.S. current account deficit and the expected share of world output. Board of Governors of the Federal Reserve System, International Finance Disc. Papers No. 856.

IMF, "Global Imbalances: A Saving, Investment Perspective" *World Econ. Outlook*, Ch. 2, Sept. 2005.

Lane, P. and G. M. Milesi-Ferretti, 2007. "The external wealth of nations mark II: Revised and extended estimates of foreign assets and liabilities, 1970-2004," *J. of International Econ.*, vol. 73(2), pages 223-250.

Martin, P. and H. Rey, "Financial Globalization and Emerging Markets: With or Without Crash?," *AER* 2007.

McGrattan, E. R. and Prescott, E. C. (2007). Technology capital and the U.S. current account. Federal Reserve Bank of Minneapolis, Staff Report 406.

Sandri, D. 2014, "Growth and Capital Flows with Risky Entrepreneurship," *Am. Ec. Journal: Macroeconomics*.

Van Wincoop, E. and C. Tille, 2007, "International Capital Flows," NBER WP 12856.