

**14.772 Development Economics: Macroeconomic Issues
Spring 2012**

Lectures: Tuesday 2:30 – 4:00
 Thursday 2:30 - 5:30

Note: Because of the 3hr on Thursdays, we will only have two more weeks after spring break

Location: E51-361
Recitations: TBD

Instructor:
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MIT <https://stellar.mit.edu/S/course/14/sp12/14.772/>

Prerequisites:
This class contributes to the fulfillment of requirements for the Development field for Economics Ph.D. students at MIT. People other than Economics Ph.D. students should consult with the instructors before enrolling. Students should have taken or be concurrently taking Ph.D. level macroeconomics, microeconomics, and econometrics.

Requirements:
The grade will be based on a final exam, class participation and three problem sets. Two problem sets will cover theoretical and empirical problems related to papers discussed in the class. One problem set will consist of a research proposal based on the covered material. The proposal should consist of a research strategy to address questions that came up during the class. Ideally such proposal could lead to a third year paper. We will discuss some of the proposals during the last lecture of the class. We plan to have three or four students presenting their proposals. So if you like to present your ideas to get feedback, please let the TAs know. All research proposals are due in the last lecture.

Readings:
Most readings can be reached through the stellar website. Please inform the TA of any broken links. You may need to be on campus to access links to copy-written materials (e.g. NBER working papers, JSTOR). Readings that are not available online will be available via library reserve.

Development/Macro Seminar:
Everyone is encouraged to attend the Development Seminar, which meets on Wednesdays, 2:30 - 4:00 p.m. When there is an out-of-town speaker, we normally take the speaker out to dinner, and we will try to save a couple of spots for graduate students

each time. Let us know if you are interested. You are also encouraged to go to the Macro Seminar, which meets Tuesdays, 4.15 - 5:45 at MIT in the Freeman Room. Usually, there are 3 or 4 graduate students taking the speaker for lunch on Tuesdays. Again, let us know if you are interested.

Development/Macro Lunch:

Everyone is also encouraged to attend the Development or the Macro Lunches. Unfortunately both lunches meet at the same time, namely Mondays from 12:00PM to 1:00PM. The development lunch meets in Building E51-095, the macro lunch in the Freeman Room.

Date	Lecture	Day	Topic
02/07/2012	1	Tuesday	Introduction
02/09/2012	2 3	Thursday	(1) CGE, DSGE, Gorman (2) Financial Frictions: Zilibotti, Growing like China, Buera-Shin
02/14/2012	4	Tuesday	Financial Deepening: Jeong, Townsend (TFP) (model comp), Felkner Townsend (QJE)
02/16/2012	5 6	Thursday	(1) Measurement: Samphantharak, Townsend “Households as Corporate Firms” (2) Villages: Accounts (3) National: Flow of Funds
02/21/2012	Monday schedule (Presidents Day)	Tuesday	No Class
02/23/2012	7 8	Thursday	(1) Insurance: Village India (2) Inter-regional risk sharing (3) Insurance: Shiller, Remittances, Instruments, International
02/28/2012	9	Tuesday	Insurance: Kinnan, Insurance in Networks
03/01/2012	10 11	Thursday	(1) Labor Risk: Bonhomme et. al. (2) Elasticities: Rogerson, Sargent
03/06/2012	12	Tuesday	Alvarez et al, Demand for Cash
03/08/2012	13 14	Thursday	(1) CAPM and Campbell (2) Poor Economies: Samphantharak, Rampini
03/13/2012	15	Tuesday	Heterogeneity: Schulhofer-Wohl
03/15/2012	16 17	Thursday	(1) Barriers to Insurance: Kinnan (2) Karaivanov et al, including Spain
03/20/2012	18	Tuesday	How do macroeconomist think about this? Bundell, Krueger, Perri...
03/22/2012	19 20	Thursday	(1) IO and Devo: Keniston et al, Spain (2) Assuncao et al.
03/27/2012	Spring break	Tuesday	No Class
03/29/2012	Spring break	Thursday	No Class
04/03/2012	21	Tuesday	Moll et al.

04/05/2012	22 23	Thursday	(1) Methods: Chetty (2) Methods: Wolpin
04/10/2012	24	Tuesday	Discussion, Research Proposals
04/12/2012	25 26	Thursday	(1) IO and Development Working Group Meeting (2) Flow of Funds Working Group Meeting

Syllabus and Reading List:

Lecture 1: Introduction to the Course

Related Literature:

- Townsend, R.M. Financial Systems in Developing Economies: Growth, Inequality, and Policy Evaluation in Thailand, Cambridge: Oxford University Press, 2011.
- Townsend, R. (2012) Financial Intermediation, Entrepreneurship, and Economic Growth in Mexico,” book manuscript.
- M. Aguiar, G Gopinath (2007), “Business Cycles in Emerging Economies. The Cycle is the Trend”, Journal of Political Economy
- Raphael Bergoing, Timothy J. Kehoe, Patrick Kehoe, Raimundo Soto, “A Decade Lost and Found: Mexico and Chile in the 1980s”
- Townsend, R.M. (2010) “Financial Structure and Economic Welfare: Applied General Equilibrium Development Economics,” in Kenneth Arrow and Timothy Bresnahan (Eds.) Annual Review of Economics, Vol. 2, 2010. Palo Alto, CA: Annual Reviews, 2010, pp. 507-5446.
- Workshops of the Consortium on Financial Systems and Poverty
 - Financial Underpinnings of Macroeconomic Models (<http://www.cfsp.org/research/workshops>)

Lecture 2 + 3: General Equilibrium Modeling with Financial Frictions

Main Readings:

- *Lecture Notes: CGE, DSGE*
- *Juan Pablo Xandri and R. Townsend (2010) Lecture Notes about Calibration (Gorman)*
- *Gine, X. and R.M. Townsend (2004) “Evaluation of Financial Liberalization: A general equilibrium model with constrained occupation choice,” Journal of Development Economics 74: 269-304.*
- *Townsend, R.M. and K. Ueda (2006) “Financial Deepening, Inequality, and Growth: A Model-Based Quantitative Evaluation,” Review of Economic Studies 73, Issue 1: 251-93.*
- *Song, Zheng, Storesletten, Kjetil, and Zilibotti, Fabrizio, “Growing like China”, American Economic Review 101 (March 2011): 196-233.*
- *Buera, Francisco, Joe Kaboski and Yongseok Shin (2010), “Finance and Development: A Tale of Two Sectors,” AER*
- *Christiano, L., Motto, R., and M. Rostagno (2009) “Financial Factors in Economic Fluctuations,” mimeo, Northwestern.*

Related Literature:

- Moll, Benjamin, “Productivity Losses from Financial Frictions: Can Self-Financing Undo Capital Misallocation?”, mimeo, University of Chicago, 2010
- Buera, Moll, “Aggregate Implications of a Credit Crunch” (2011)
- Buera, Shin, “Financial Frictions and the Persistence of History: A Quantitative Exploration” (2008)

Lecture 4: Macro Development Models (continued: transitions, geography, model comparisons)

Main Reading:

- Jeong, Hyeok and R.M. Townsend, (2007) “Sources of TFP Growth: Occupational Choice and Financial Deepening,” *Economic Theory*, Vol 32 (special issue honoring Edward Prescott), 179-221
- Felkner, J and R. M. Townsend (2011) “The Geographic Concentration of Enterprise in Developing Countries,” *Quarterly Journal of Economics*, 26 (4): 2005-2061, 2011.
- Jeong, H. and R.M. Townsend (2008) “Growth and Inequality: Model Evaluation Based on an Estimation-Calibration Strategy,” with. *Macroeconomic Dynamics* 12, Supplement S2: 231-84.
- Assuncao, J. Madeira, G. and R. M. Townsend: *Brazil Project: Slides*
- Moreno, Jorge: “The Mexican Survey Databases for Analyzing Household and Firm”
- Yan Ji –Computation Slides

Lecture 5+6: Measurement Financial Accounts, Economic Accounts, NIPA, Balance of Payments: from Households to Village Economies to National level Flow of Funds

Main Reading:

- K Samphantharak, R Townsend (2009) “Households as Corporate Firms: An Analysis of Household Finance Using Integrated Household Surveys and Corporate Financial Accounting. *Econometric Society Monograph Series*. Cambridge; New York: Cambridge University Press, 2009, Ch. 4.
- K Samphantharak and R Townsend (forthcoming), “Measuring the Return on Household Enterprise: What Matters Most for Whom?” *Journal of Development Economics*
- Paweenawat, A. and R. M. Townsend (2011), village accounts, from “Villages as Small Open Economies”
- *Lecture Notes: Flow of funds*

Related Literature:

- A Banerjee, E Breza and R Townsend, “Productive Heterogeneity and Household Investment in Rural Thailand”
- A Pawasutipaisit (2011) “Wealth accumulation and factors accounting for success”
- Caballero, Antras, Trade and Capital Flows, A Financial Frictions Perspective, JPE
- L Christiano, M Eichenbaum, C Evans (1996) “The Effects of Monetary Policy Shocks: Evidence from the Flow of Funds”, *The Review of Economics and Statistics*

- H Dewachter, Romain Houssa and Priscialla Toffano (2010), “Spatial Propagation of Macroeconomic Shocks in Europe”, CRED Working Paper

Lecture 7+8: Insurance: from Village Insurance to Risk Instruments in advanced, OECD countries

Main Reading:

- *Townsend, Robert (1994) “Risk and Insurance in Village India.” *Econometrica* 62(3), 539–591.*
- *Village as small open economies, continued*
- *Rainfall Insurance*
- *Handout for Case-Shiller-Index*
- *Handouts for Cat Bonds and Reinsurance*
- *Literature on International Risk-Sharing*

Lecture 9: Financial Networks and Shadow Banking

Main Reading:

- *Kinnan, Cynthia and Robert Townsend (2011) “Kinship and Financial Networks, Formal Financial Access and Risk Reduction”*

Related Literature:

- W Sripakdevong, R Townsend, “Refinancing Loans”
- Bertrand et al. tunneling
- Chaibols, Joint Liability Groups
- R Townsend, “Saving and Risk in Developing Countries: Theory and Evidence”, NBER Summer Institute Report

Lecture 10+11: Labor Supply: Intensive and Extensive Margin in Villages to Families, Lotteries, and Elasticities in Macro

Main Readings:

- *Bonhomme, Chiappori, Townsend, Yamada, “Sharing Wage Risk”, Working Paper.*
- *Richard Rogerson, “Indivisible labor, lotteries and equilibrium”, *Journal of Monetary Economics*, Volume 21, Issue 1, January 1988, Pages 3-16.*
- *Gary D. Hansen, “Indivisible labor and the business cycle”, *Journal of Monetary Economics*, Volume 16, Issue 3, November 1985, Pages 309-327.*
- *Edward C. Prescott, “Why do Americans Work so Much More than Europeans?”, *National Bureau of Economic Research Working Paper Series*, No. 10316, February 2004.*
- *Lars Ljungqvist and Thomas Sargent, “Career Length: Effects of Curvature of Earnings Profiles, Earnings Shocks, Taxes, and Social Security”, Working Paper, August 2011.*

Additional Readings:

- Edward C. Prescott, “Nobel Lecture: The Transformation of Macroeconomic Policy and Research”, *Journal of Political Economy*, Vol. 114, No. 2 (April 2006), pp. 203-235.
- Ljungqvist, Lars and Sargent, Thomas J., “A Labor Supply Elasticity Accord?”,

- The American Economic Review, Vol. 101, No. 3, May 2011, pp. 487-491.
- Edward C. Prescott, Richard Rogerson, Johanna Wallenius, “Lifetime aggregate labor supply with endogenous workweek length,” *Review of Economic Dynamics*, Volume 12, Issue 1, January 2009, Pages 23-36.
 - Lars Ljungqvist, Thomas J. Sargent, “Do Taxes Explain European Employment? Indivisible Labor, Human Capital, Lotteries, and Savings”, *NBER Macroeconomics Annual 2006*, Volume 21, pp. 181-246.

Lecture 12: Demand for Cash

Main reading:

- *F Alvarez, Pawasutipaisit, Townsend, “Cash management in Thai Villages”*

Related Literature:

- F Alvarez, F Lippi “Financial Innovation and the Transactions Demand for Cash, with Francesco Lippi,” *Econometrica*, February 2009, v:77, pp 363-402,
- F Alvarez, F Lippi (2012) “The demand for liquid asset with uncertain lumpy expenditures“
- Miller, M., and D. Orr (1966) “A Model of the Demand for Money by Firms,” *Quarterly Journal of Economics*, 80, 413–435.

Lecture 13+14: Capital Asset Pricing: Idiosyncratic and Aggregate Risk, Mean Variance Frontiers, Lack of Insurance among the poor and modern corporations

Main reading:

- *Samphantharak and Townsend (2009), “Risk and Return in Village Economies“*
- *Calvet, L., J. Campbell, and P. Sodini (2007), “Down or Out: Assessing the Welfare Costs of Household Investment Mistakes,” *Journal of Political Economy* 115 (5): 707-747.*
- *K. Samphantharak, ”Understanding Income Volatility in Village Economies”*
- *Rampini, A., A. Sufi, and S. Viswanathan (2011), “Dynamic Risk Management“*

Lecture 15: Heterogeneity in Structural and Reduced Form Models

Main Reading:

- *Schulhofer-Wohl, “Heterogeneity and Tests of Risk Sharing“*

Related Literature:

- Akerberg and Botticini, “Endogenous Matching and the Empirical Determinants of Contract Form”, *JPE*, 2002

Lecture 16+17: Barriers to Sharing Risk (moral hazard, limited commitment, exogenous incomplete markets): Common Methods in Village and OECD countries

Main Reading:

- *Kinnan, Cynthia, “Distinguishing barriers to insurance in Thai villages“*
- *Rob Townsend and Alexander Karaivanov, “Dynamic Financial Constraints: Distinguishing Mechanism Design from Exogenously Incomplete Regimes“*

Related Literature:

- Alexander Karaivanov, Sonia Ruano, Jesus Saurina and Rob Townsend (2010), “No Bank, One Bank, Several Banks: Does It Matter for Investment?”

Lecture 18: Links to the Macro Literature: Panel Data and Model of Smoothing

Main Reading:

- *A Deaton, C Paxson (1994), "Intertemporal Choice and Inequality", Journal of Political Economy, Vol. 102, No. 3, pp. 437-467*
- *R. Blundell, A Duncan, C Meghir (1998) "Estimating Labor Supply Responses using Tax Reforms", Econometrica Vol. 66, No. 4, pg. 827-861*
- *D Krueger, Fabrizio Perri (2010), "How do households respond to income shocks?", Working Paper University of Pennsylvania*
- *D Altig, A Auerbach, L Kotlikoff, K Smetters, J Walliser (2001), "Simulating Fundamental Tax Reform in the United States", American Economic Review, Vol. 91, no 3*

Related Literature:

- Juan F. Rubio-Ramirez, J. Villaverde, 'Our Research Agenda: Estimating DSGE Models'. A useful overview by Villaverde and Rubio-Ramirez, which can be found on Villaverde's website
<http://economics.sas.upenn.edu/~jesusfv/research.html#Estimation/>

Lecture 19+20: IO and Development: Modeling Financial Service Providers in Various Country Contexts

Main reading:

- *Keniston, D., C. Montes, J. Saurina, and R. Townsend (2011) "Expansion of Spanish Banks: Distance Costs and Proximity Gains"*
- *J. Assuncao, S. Mityakovy, R Townsend (2011), "Geography and Dynamics: Bank Ownership and Expansion of the Financial Sector in Thailand"*

Lecture 21: Information Constraints in General Equilibrium: measured micro foundations in an integrated macro model

Main reading:

- *Benjamin Moll, Rob Townsend and Victor Zhorin, "Entrepreneurship, Inequality and Growth with Information Constrained Factor Markets"*

Lecture 22+23: Welfare and the Evaluation of Impact: Reduced Form Econometrics and Structural Parameters

Main Reading:

- *Raj Chetty, "Sufficient Statistics for Welfare Analysis: A Bridge Between Structural and Reduced-Form Methods", Annual Review of Economics 1: 451-488, 2009*
- *Raj Chetty, "Moral Hazard vs. Liquidity and Optimal Unemployment Insurance, Journal of Political Economy, 116(2): 173-234, 2008.*
- *Raj Chetty, Adam Looney, "Consumption Smoothing and the Welfare Consequences of Social Insurance in Developing Economies, Journal of Public Economics, 2006*
- *Kenneth Wolpin, Ex ante Policy Evaluation, Structural Estimation and Model Selection, AER PP*

- Keane, Wolpin, “Empirical Applications of discrete choice dynamic programming models,” *RED*, 2009
- Petra Todd and Ken Wolpin, “Assessing the Impact of a School Subsidy Program in Mexico: Using a Social Experiment to Validate a Behavioral Model of Child Schooling and Fertility”, *American Economic Review*, December, 2006.
- J Kaboski and R Townsend (forthcoming), “The Impact of Credit on Village Economies.” *American Economic Journal*
- J Kaboski and R Townsend (2011, “A Structural Evaluation of a Large-Scale Quasi-Experimental Microfinance Initiative,” *Econometrica* 79(5), September 2011: 1357-1406.
- R Townsend, S Urzua, “Measuring the Impact of Financial Intermediation: Linking Contract Theory to Econometric Policy Evaluation,” *Macroeconomic Dynamics*, 13 (S2) 268-316, 2009.

Lectures 24 and Onward: Discussion, Research Proposals

Lecture 25: IO and Development Working Group Meeting

- April 11-12: *Financial Systems, Industrial Organization, and Economic Development Workshop, Sloan School of Management – Room TBD*

Lecture 26: Flow of Funds Working Group Meeting

- April 13-14: *Savings and Flow of Funds: Enhancing and Improving Flow of Funds Accounts Workshop, Marriott Hotel, Kendall Sq.*