AEM 7620: The Microeconomics of International Development
Fall 2008

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Course description: This course is designed for students with graduate level training in microeconomics and econometrics and an interest in international development. It focuses on the specification, estimation and interpretation of models of individual, household, firm/farm, and market behavior. A wide range of topics are covered. The intent is to provide an in depth survey of the research frontiers in various areas of the microeconomics of international development. Students from other fields are welcome and prior background will be taken into consideration in evaluating students' course papers.

Our basic philosophy in this course is to assist the transition from student to scholar. We do not assign homework or exams and do not expect anyone to read everything on the syllabus. Rather, the intent is to expose students to seminal bits of several interrelated literatures, to explain the mechanics of key theories and methods, to encourage students to think critically about what these literatures tell us about microeconomic behavior in the low-income world, and to help train them how to undertake original research of their own as well as to offer constructive criticism of others' research.

Course prerequisites: Completion of the first year Ph.D. course sequence in microeconomic theory (ECON 609/610/669) and econometrics (AEM 710/711 or ECON 619/620), or our permission. History shows that motivated M.S. candidates and Ph.D. candidates from allied disciplines also fare well in the course if they are willing to invest time in understanding at least the intuition of the more advanced material. Students are welcome to audit or to take the course on an S/U basis.

Evaluation: Grades will be based on a term paper (60%) and two 2-3 page formal referee reports of current working papers (40%). The working papers available for critique will be identified in the first week or two of the course. A 2-5 page, typewritten proposal for the term paper is due **not later than Wednesday, October 29**. The proposal must clearly identify the question(s) or puzzle(s) the paper aims to address, the literature into which this work fits, and the basic modeling approach to be followed. The paper need not be turned in this semester; students can take an incomplete and finish the paper over the following year, if they prefer. Any student not turning in a paper by November 1, 2009, will receive a failing grade.

Readings: Our detailed lecture notes are available on the course Moodle web site, for which you self-enroll. There is no course text, but we encourage students to purchase a copy of Angus Deaton's *The Analysis of Household Surveys: A Microeconometric Approach to Development Policy* (Johns Hopkins University Press, 1997). It is no longer in print so the Campus Store is unable to order new copies. However, it is still available from many sellers on Amazon.com. It is also available as an online book through Cornell library. For easy access there is a link from the 7620 course website. All other readings are either available as e-journal articles through Cornell library or will be posted on the course web site. Core readings, which you are strongly encouraged to read, are denoted by an asterisk (*). Where no publication source is listed, the paper is an unpublished working paper. The reading list below uses the following abbreviations:

AER *American Economic Review*
AJAE *American Jl of Agricultural Economics*
EDCC *Economic Dev't and Cultural Change*
EJ *Economic Journal*
ETAI P. Bardhan, ed., *The Economic Theory of Agrarian Institutions* (Oxford, 1989).
ETRA *Econometrica*
HBS K. Hoff, A. Braverman and J.E. Stiglitz, eds., *The Economics of Rural Organization: Theory, Practice and Policy* (Oxford, 1993).
HAE B.Gardner and G. Rausser, eds., *Handbook of Agricultural Economics* (Elsevier, 2002).
HDE H.Chenery and T.N.Srinivasan, eds. (Vols. 1 and 2), or J.Behrman and T.N. Srinivasan, eds. (Vols. 3A/3B), *Handbook of Development Economics* (Elsevier, various years).
JAE *J. of African Economies*
JDE *J. Development Economics*
JDS *J of Development Studies*
JEL *J of Economic Literature*
JEP *J of Economic Perspectives*
JHR *Journal of Human Resources*
JPE *Journal of Political Economy*
OEP *Oxford Economic Papers*
QJE *Quarterly J of Economics*
REStat *Rev Economics and Statistics*
REStud *Review of Economic Studies*
WD *World Development*

I. KEY MODELING AND ESTIMATION METHODS

IA. Household and Intra-household Models

IA1.Separable and Nonseparable Household Models [August 29-September 12]

*I.Singh, L.Squire, and J.Strauss, Agricultural Household Models (1986), intro and chap. 1

*A. De Janvry, M.Fafchamps, and E. Sadoulet, "Peasant Household Behavior With Missing Markets: Some Paradoxes Explained," *EJ* (1991)

*C.Barrett, S. Sherlund and A. Adesina, "Shadow Wages, Allocative Inefficiency, and Labor Supply in Smallholder Agriculture" *Agricultural Economics* (2008).

*H. Jacoby, "Shadow Wages and Peasant Family Labour Supply: An Econometric Application to the Peruvian Sierra," *REStud*, 60, 3 (1993): 903-921.

D.Benjamin, "Household Composition, Labor Markets and Labor Demand: Testing for Separation in Agricultural Household Models," *ETRA* (1992).

C.Barrett and P. Dorosh, "Farmers' Welfare and Changing Food Prices: Nonparametric Evidence from Rice in Madagascar," *AJAE* (August 1996): 656-669.

J. Newman and P. Gertler, "Family Productivity, Labor Supply and Welfare in a Low Income Country," *JHR* 29, 4 (1994): 989-1026.

IA2. Intrahousehold Models [September 12-19]

*A.Deaton, chapter 4.2

*C. Udry,"Gender, "Agricultural Production, and the Theory of the Household," *JPE* (1996).

L. Haddad and R. Kanbur, "How Serious is the Neglect of Intra-Household Inequality?" *EJ* (1990): 866-881.

S. Dercon and P. Krishnan, "In Sickness and in Health: Risk Sharing within Households in Rural Ethiopia," *JPE* (2000): 688-727.

M.Pitt, M. Rosenzweig, and M.Hassan, "Productivity, Health, and Inequality in the Intra-household Distribution of Food in Low-Income Countries," *AER*, 1990: 1139-1156.

L. Haddad and R. Kanbur, "Is There An Intrahousehold Kuznets Curve? Some Evidence from the Philippines?" *Public Finances/Finances Publiques* (1992).

N. Folbre, "Household Production in the Philippines: A Non-Neoclassical Approach," *EDCC* (1984).

J. McPeak and C. Doss (2006), "Are Household Production Decisions Cooperative? Evidence On Pastoral Migration and Milk Sales From Northern Kenya," *AJAE* 88:525–541.

H. Alderman et al. "Unitary Versus Collective Models of the Household: Is It Time To Shift The Burden of Proof?" *World Bank Research Observer* (1995)

L. Haddad, J. Hoddinott, and H. Alderman, eds., *Intrahousehold Resource Allocation in Developing Countries: Methods, Models and Policy* (Johns Hopkins, 1996).

IB. Causal Inference: Experiments and Instruments [September 19]

*Rodrik, D. (2008). The new development economics: We shall experiment, but how shall we learn? Cambridge, MA, Harvard University.

*Banerjee, A., P. Bardhan, K. Basu, R. Kanbur and D. Mookherjee (2005). "New Directions in Development Economics: Theory or Empirics." Economic and Political Weekly 40(40).

*Keane, M. P. (forthcoming). "Structural vs. Atheoretic Approaches to Econometrics." Journal of Econometrics.

Heckman, J. J. and J. A. Smith (1995). "Assessing the Case for Social Experiments." Journal of Economic Perspectives 9(2): 85-110.

Hoddinott, J., J. A. Maluccio, J. R. Behrman, R. Flores and R. Martorell (2008). "Effect of a nutrition intervention during early childhood on economic productivity in Guatemalan adults." The Lancet 371(9610): 411-416.

Duflo, E., R. Glennerster and M. Kremer (2008). Using Randomization in Development Economics Research: A Toolkit. Handbook of Develoment Economics Volume 4. T. P. Schultz and J. Strauss. Amsterdam, North-Holland: 3895-3962.

Miguel, E. and M. Kremer (2004). "Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities." Econometrica 72(1): 159-217.

Gertler, P. (2004). "Do Conditional Cash Transfers Improve Child Health? Evidence from PROGRESA's Control Randomized Experiment." American Economic Review 94(2): 336-341.

Behrman, J. R. and J. Hoddinott (2005). "Programme Evaluation with Unobserved Heterogeneity and Selective Implementation: The Mexican PROGRESA Impact on Child Nutrition." Oxford Bulletin of Economics & Statistics 67(4): 547-569.

II. CONSUMPTION, NUTRITION, RISK AND POVERTY TRAPS

IIA. Consumption, nutrition, and health [September 24-26]

*A. Deaton, chapter 4.1

*Behrman, J., M. Rosenzweig and A. Foster (1997). "The Dynamics of Agricultural Production and the Calorie-Income Relationship: Evidence from Pakistan." Journal of Econometrics 77: 187-207.

*Strauss, J. and D. Thomas (1998). "Health, nutrition and economic development." Journal of Economic Literature 36(2): 766-817.

Behrman, J. R. and A. B. Deolalikar (1987). "Will Developing Country Nutrition Improve with Income? A Case Study for Rural South India." Journal of Political Economy 95(3): 492.

Bouis, H. E. and L. J. Haddad (1992). "Are estimates of calorie-income fxelasticities too high? : A recalibration of the plausible range." Journal of Development Economics 39(2): 333-364.

IIB. Consumption Smoothing: Savings, credit and insurance [September 26 – October 8]

*A. Deaton, chap. 6.2-6.5

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

* Gertler, P. and J. Gruber (2002). "Insuring Consumption Against Illness." American Economic Review 92(1): 51-70.

Behrman, J., A. Foster and M. Rosenzweig (1997). "Dynamic savings decisions in agricultural environments with incomplete markets." Journal of Business & Economic Statistics 15(2): 282.

Besley, T. J. (1995). Savings, credit and insurance. Handbook of Development Economics Volume 3A. J. Behrman and T. Srinivasan. Amsterdam, Elsevier Science.

Udry, C. (1994). "Risk and Insurance in a Rural Credit Market: An Empirical Investigation in Northern Nigeria." The Review of Economic Studies 61(3): 495-526.

Ligon, E., J. P. Thomas and T. Worrall (2002). "Informal Insurance Arrangements with Limited Commitment: Theory and Evidence from Village Economies." The Review of Economic Studies 69(1): 209-244.

Townsend, R. M. (1995). "Financial systems in Northern Thai villages." Quarterly Journal of Economics 110(4): 1011-1046.

Morduch, J. (2004). Consumption Smoothing Across Space: Testing Theories of Risk-Sharing in the ICRISAT Study Region of South India. Insurance against Poverty. S. Dercon. Oxford, Oxford University Press.

Chavas, J.-P. (2004). Risk Analysis in Theory and Practice. London, Elsevier. Chapter 5 on Stochastic Dominance.

Barrett, C. B., B. J. Barnett, M. R. Carter, S. Chantarat, J. W. Hansen, A. G. Mude, D. E. Osgood, J. R. Skees, C. G. Turvey and M. N. Ward (2007). Poverty traps and climate risk: Limitation and opportunities of index-based risk financing. IRI Technical Report 07-02, International Research Institute for Climate and Society.

Coate, S. and M. Ravallion (1993). "Reciprocity without commitment : Characterization and performance of informal insurance arrangements." Journal of Development Economics 40(1): 1-24.

De Weerdt, J. (2004). Risk-sharing and endogenous network formation. Insurance against poverty. S. Dercon. Oxford, Oxford University Press.

Vanderpuye-Orgle, J. and C. B. Barrett (forthcoming). "Risk management and social visibility." African Development Review.

IIC. Risk, vulnerability, variability and chronic poverty [October 10-15]

*Ligon, E. and L. Schechter (2002). Measuring vulnerability: The director's cut. WIDER.

*Banerjee, A. (2004). The Two Poverties. Insurance against poverty. S. Dercon. Oxford, Oxford University Press.

Foster, J. E. (forthcoming). A Class of Chronic Poverty Measures. Poverty dynamics: Towards interdisciplinary approaches. T. Addison, D. Hulme and R. Kanbur. Oxford, Oxford University Press.

Calvo, C. and S. Dercon (2007). Chronic poverty and all that: The measurement of poverty over time. Centre for the Study of African Economies Working Paper 263. Oxford, Oxford University.

Naschold, F. (2008). Measuring poverty over time: Accounting for Income Variability and the intertemporal distribution of poverty. Ithaca, Cornell University.

Cruces, G. (2005). Income fluctuations, poverty and well-being over time: Theory and Application to Argentina. Distributional Analysis Research Program Discussion Paper 76. London, London School of Economics.

IID. Welfare Dynamics and Poverty Traps [October 15 - 24]

*Carter, M. R. and C. B. Barrett (2006). "The economics of poverty traps and persistent poverty: An asset-based approach." Journal of Development Studies 42(2): 178-199.

*Dercon, S. (1998). "Wealth, risk and activity choice: cattle in Western Tanzania." Journal of Development Economics 55: 1-42.

*Banerjee, A. and A. Newman (1993). "Occupational choice and the process of development." Journal of Political Economy 101: 274-298.

*Rosenzweig, M. R. and H. P. Binswanger (1993). "Wealth, Weather Risk and the Composition and Profitability of Agricultural Investments." Economic Journal 103(416): 56-78.

Zimmerman, F. J. and M. R. Carter (2003). "Asset smoothing, consumption smoothing and the reproduction of inequality under risk and subsistence constraints." Journal of Development Economics 71(2): 233-260.

Azariadis, C., J. Stachurski and N. D. Philippe Aghion and Steven (2005). Chapter 5 Poverty Traps. Handbook of Economic Growth, Elsevier. Volume 1, Part 1: 295-384.

Lybbert, T., C. B. Barrett, S. Desta and D. L. Coppock (2004). "Stochastic wealth dynamics and risk management among a poor population." Economic Journal 114: 750-777.

Carter, M. R. and J. May (2001). "One Kind of Freedom: Poverty Dynamics in Post-apartheid South Africa." World Development 29(12): 1987-2006.

Adato, M., M. R. Carter and J. May (2006). "Exploring poverty traps and social exclusion in South Africa using qualitative and quantitative data." Journal of Development Studies 42(2): 226-247.

Moser, C. and A. Felton (2007). The Construction of an Asset Index Measuring Asset Accumulation in Ecuador. Chronic Poverty Research Center Working Paper 87. Washington, DC, Brookings Institutions.

Antman, F. and D. McKenzie (2007). "Poverty traps and nonlinear income dynamics with measurement error and individual heterogeneity." Journal of Development Studies 43(6): 1057-1083.

Barrett, C. B., M. R. Carter and M. Ikegami (2008). Poverty traps and social protection. Ithaca and Madison, Cornell Univerity and University of Wisconsin.

Naschold, F. (2008). Modeling household asset dynamics: New methods with an application to rural India. Ithaca, Cornell University.

III. PRODUCTIVITY, AGRARIAN CONTRACTS AND FACTOR MARKETS

IIIA. Smallholder Productivity

IIIA1. Inverse Farm Size-Productivity Relationship [Oct 29 – Nov. 5]

*G. Feder, "The Relation Between Farm Size and Farm Productivity: The Role of Family Labor, Supervision and Credit Constraints," *JDE* 18 (1985): 297-313.

*M. Carter, "Identification of the Inverse Relationship Between Farm Size and Productivity: An Empirical Analysis of Peasant Agricultural Production," *OEP* 36 (1984): 131-145.

R. Heltberg, "Rural Market Imperfections and the Farm Size-Productivity Relationship: Evidence from Pakistan," *WD* 26, 10 (1998): 1807-1826.

C.B. Barrett, "On Price Risk and The Inverse Farm Size-Productivity Relationship," *JDE* 51, 2 (December 1996): 193-215.

Bhalla, Surjit S., and Prannoy Roy, "Mis-Specification in Farm Productivity Analysis: The Role of Land Quality," *OEP* 40 (1988): 55-73.

D. Benjamin, "Can Unobserved Land Quality Explain the Inverse Productivity Relationship?" *JDE* (Feb. 1995): 51-84.

J.J. Assuncao and J.H.B. Braido (2007), "Testing Household-Specific Explanations For the Inverse Productivity Relationship", *AJAE* 89(4): 980-990.

R.L. Lamb (2003), "Inverse Productivity: Land Quality, Labor Markets, and Measurement Error," *JDE* 71: 71-95.

IIIA2. Efficiency Frontier Estimation [Nov. 7 – 12]

*M. Ali and D. Byerlee, ”Economic Efficiency of Small Farmers in a Changing World: A Survey of Recent Evidence,” *Journal of International Development*, 3, 1 (1991): 1-27.

*C. Barrett, ”How Credible Are Estimates of Peasant Allocative, Scale or Scope Efficiency? A Commentary,” *Journal of International Development* (1997).

*S. Sherlund, C. Barrett, and A. Adesina, ”Smallholder Technical Efficiency Controlling For Environmental Production Conditions” *JDE* (2002).

S. Kumbhakar and A. Bhattacharyya, ”Price Distortions and Resource-Use Efficiency in Indian Agriculture: A Restricted Profit Function Approach,” *REStat* (1992): 231-239.

IIIB. Technology adoption [Nov. 14 - 21]

*G. Feder, R. Just, and D. Zilberman, ”Adoption of Agricultural Innovations in Developing Countries: A Survey,” EDCC 33 (1985): 255-298.

*A. Foster and M. Rosenzweig, ”Learning By Doing and Learning from Others: Human Capital and Technical Change in Agriculture,” *JPE* (1995).

*T. Conley and C. Udry, “Learning About a New Technology: Pineapple in Ghana,” Yale working paper (2007).

L. Cameron, ”The Importance of Learning in the Adoption of High-Yielding Variety Seeds,” *AJAE* 81 (Feb. 1999): 83-94.

T. Besley and A.Case, ”Modeling Technology Adoption in Developing Countries,” AER 83 (May 1993): 396-402.

R. Just and D. Zilberman, ”Stochastic Structure, Farm Size and Technology Adoption in Developing Agriculture,” *OEP* 35 (1983): 307-328.

T.-K. Kim, A. Hallam and D. Hayes, ”Technology Adoption Under Price Uncertainty,” *JDE* (January 1992)

D. Hennessy, ”Stochastic technologies and the adoption decision,” *JDE* 54 (1997).

C.M. Moser and C.B. Barrett, “The Complex Dynamics of Smallholder Technology Adoption: The Case of SRI in Madagascar,” *Agricultural Economics* (2006).

IIIC. Agrarian contracts [Nov 26 – Dec 5]

*K. Otsuka, H. Chuma and Y. Hayami, "Land and Labor Contracts in Agrarian Economies: Theories and Facts," *JEL* (1992).

*M. Eswaran and A. Kotwal, "A Theory of Contractual Structure in Agriculture," *AER* 75, 3 (1985): 352-367.

* R. Shaban, ”Testing Between Competing Models of Sharecropping,” *JPE* 95, 5 (1987).

*J.-J. Laffont and M.S. Matoussi, ”Moral Hazard, Financial Constraints and Sharecropping in El Oulja,” *REStud* (July 1995)

*A. Foster and M. Rosenzweig,”A Test for Moral Hazard in the Labor Market: Contractual Arrangements, Effort and Health,” *REStat*, May 1994: 213-227.

C. Bell, "A Comparison of Principal-Agent and Bargaining Solutions: The Case of Tenancy Contracts," *ETAI*.

J.E. Stiglitz, "Incentives and Risk Sharing in Sharecropping," *REStud* 41, 2 (1974): 219-155.

D. Newbery, ”Risk-Sharing, Sharecropping, and Uncertain Labour Markets,” *REStud* (1977): 585-594.
P. Dubois, “Moral Hazard, Land Fertility and Sharecropping in a Rural Area of the Philippines,” *JDE* 68:1 (2002): 35-64.
M. Eswaran and A. Kotwal, ”A Theory of Two-Tiered Labor Markets in Agrarian Economies,” *AER* (March 1985): 162-177.
G. Frisvold, ”Does Supervision Matter? Some Hypothesis Tests Using Indian Farm-Level Data,” *JDE* 43 (1994): 217-238.
L. Braido (2008), “Evidence on the Incentive Properties of Share Contracts,” *J. of Law and Economics* 51: 327-349.