

Syllabus Fall 2015
Development Economics (PhD)
Risk, Shocks & Technology Adoption
Yonas Alem*

October 3, 2015

1 Description

This part of the course provides an in-depth analysis of current research in selected crucial issues in the microeconomics of risk and shocks, and technology adoption at a PhD-level. We will begin with a brief exposition of household economics that mainly focuses on the standard agricultural household models. These models are often the bases for modelling decisions by farm households and households in the informal sector of developing countries who often operate in uncertain and risky environments.

After that we will move on to looking at risk, informal insurance and consequences of risk and shocks in a formally uninsured environment. We will then continue on savings and credit which are often used to smooth risk across time. This will be followed by a section on technology adoption which includes topics on both the traditional theories of technology adoption and the more recent literature which emphasizes the role of social networks.

As these topics are highly empirical in nature, we will allocate a large part of the lectures for discussing what makes a good empirical paper. There is no textbook for this part of the course, although as a starting point for some of the topics, we will be using the book *Development Microeconomics* by Bardhan & Udry (1999). Most of the required readings will be papers marked with “*”. As the topics are very broad sub-areas of development microeconomics, a number of papers are listed in the reading list. It is not possible to cover all of them in 7 lectures. The only way to grasp the frontier literature in the field is to read as much as you can. It is really important to read the required reading materials. A solid piece of empirical work usually has novel research

*Department of Economics, University of Gothenburg, e-mail: yonas.alem@economics.gu.se.

questions, clear conceptual framework, and a careful identification strategy. Try to look at these aspects more carefully when you read the required papers.

2 Reading List

2.1 The microeconomics of risk and shocks

2.1.1 Household economics (Wed 7 Oct)

- *Bardhan, P., and Udry, C. Development Microeconomics. Oxford University Press, 1999, Ch. 2.
- *Ashraf, N. (2009). Spousal Control and Intra-household Decision Making: An Experimental Study in the Philippines. *American Economic Review*, 99(4): 1245-1277.
- *Schaner, S. 2015. Intra-Household Preference Heterogeneity, Commitment, and Strategic Savings, *American Economic Journal: Applied Economics*, 7(2): 135-174.
- Dercon, S. and Krishnan, P. (2000). In *Sickness and in Health: Risk Sharing within Rural Households in Rural Ethiopia*. *Journal of Political Economy*, 108 (4): 688-727.
- Duflo, E. (2003). Grandmothers and Granddaughters: Old-Age Pensions and Intra-household Allocation in South Africa. *World Bank Economic Review*, 17 (1): 1-25.

2.1.2 Risk sharing and informal insurance (Thu 8 Oct)

- *Bardhan, P. & Udry, C. (1999), *Development Microeconomics*, New York: Oxford University Press, chapter 8.
- *Robinson, J. (2012), Limited Insurance Within the Household: Evidence from a Field Experiment in Western Kenya. *American Economic Journal: Applied Economics*, 4(4): 140-164.
- *Robinson, J & Yeh, E. Risk-Coping through Sexual Networks. *The Journal of Human Resources*, 47(1): 107-145.
- Foster, A. D. & Rosenzweig, M. R. (2001), Imperfect Commitment, Altruism and the Family: Evidence from Transfer Behaviour in Low-Income Rural Areas,? *Review of Economics and Statistics*, 83(3), 389-407.

- Ligon, E., Thomas, J. P. & Worrall, T. (2002), Informal Insurance Arrangements with Limited Commitment: Theory and Evidence from Village Economies,? *Review of Economic Studies*, 69(1), 209-244.
- Barr, A. & Genicot, G. (2008), Risk Sharing, Commitment, and Information: An Experimental Analysis. *Journal of the European Economic Association*, 6(6), 1151-1185.

2.1.3 Consequences of risk and shocks (Fri 9 Oct)

- *Dercon, S. (2009). Fate and Fear: Risk and its Consequences in Africa. *Journal of African Economies*. 17(Supp. 2): 97-127.
- *Maccini, S. and Yang, D. (2009) Under the Weather: Health, Schooling, and Economic Consequences of Early-Life Rainfall. *American Economic Review*, 99(3): 1006-1026.
- *Alem, Y and Colmer, J. (2013). Optimal Expectations and the Welfare Cost of Climate Variability, Department of Economics, University of Gothenburg.
- *Adhvaryu, A., Fenske, J. and Nyshadham, A. (2014). Early life circumstance and adult mental health. University of Oxford Working Paper.
- Beegle K., Dehejia, R.H. and Gatti, R. (2006). Child labor and agricultural shocks, *Journal of Development Economics*, 81(1): 80-96.
- Kochar, A. (1999). Smoothing Consumption by Smoothing Income: Hours-of-Work Responses to Idiosyncratic Agricultural Shocks in Rural India. *Review of Economics and Statistics*, 81(1): 50-61.
- Bundervoet, T. Verwimp, P., and Akresh, R. (2009). Health and Civil War in Rural Burundi. *Journal of Human Resources*, 44(2): 536-563.
- Alderman, H., J. Hoddinott, and B. Kinsey (2006). Long-term consequences of early childhood malnutrition, *Oxford Economic Papers*, 58(3): 450-474.

2.1.4 Savings (Mon 12 Oct)

- *Udry, C. (1995). Risk and Saving in Northern Nigeria, *American Economic Review*, 85(5), 1287-1300.
- *Anderson, S. and Baland, J. (2002). The Economics of ROSCAs and Intra-Household Resource Allocation. *Quarterly Journal of Economics*, 117 (3): 963-995.

- *Paxson, C. (1992). Using Weather Variability to Estimate the Response of Savings to Transitory Income in Thailand, *American Economic Review*, 82(1), 15-33.
- Deaton, A. (1989). Saving in Developing Countries: Theory and Review, *Proceedings of the World Bank Annual Conference on Development Economics*, the World Bank.
- Deaton, A. (1991). Saving and Liquidity Constraints, *Econometrica*, 59(5), 1221-1248.
- Besley, Timothy, Stephen Coate, and Glenn Loury (1993). The Economics of Rotating Savings and Credit Associations. *American Economic Review*, 83 (4): 792-810.
- Gugerty, M. K. (2007). You Can't Save Alone: Commitment in Rotating Savings and Credit Associations in Kenya. *Economic Development and Cultural Change*, 55: 251-282.

2.1.5 Credit (Fri 16 Oct)

- *Bardhan, P. and Udry, C. *Development Microeconomics*. Oxford University Press, 1999, Ch. 7.
- *Karlan, D. & J. Zinman (2009), Observing Unobservables: Identifying Information Asymmetries with a Consumer Credit Field Experiment, *Econometrica*, 77(6), 1993-2008.
- Morduch, J. (1999). The Microfinance Promise. *Journal of Economic Literature*, 37 (4): 159-1614.
- Banerjee, A., Duflo, E., Glennerster, R. and Kinnan, C. (2010). The Miracle of Microfinance? Evidence from a Randomized Evaluation. Working paper.

2.2 Technology adoption

2.2.1 Technology adoption I (Mon 19 Oct)

- *Gine, X., and Yang, D. (2009). Insurance, Credit, and Technology Adoption: Field Experimental Evidence from Malawi, *Journal of Development Economics*, 89: 1-11.
- *Alem et al. (2010). Does fertilizer use respond to rainfall variability? Panel data evidence from Ethiopia. *Agricultural Economics*, 41: 165-175.
- *Lui, E. M. (2013). Time to change what to sow: Risk preferences and technology adoption decisions of cotton farmers in China, *Review of Economics and Statistics*, 95(4): 1386-1403.
- Duflo, E., Kremer, M., and Robinson, J. (2011). Nudging Farmers to Use Fertilizer: Theory and Experimental Evidence from Kenya. *American Economic Review*, 101: 2350-2390.

2.2.2 Technology Adoption II (Fri 23 Oct)

- *Bandiera, O. & Rasul, I. (2006). Social Networks and Technology Adoption in Northern Mozambique, *Economic Journal*, 116(514), 869-902.
- *BenYishay, A., and Mobarak, M. (2014). Social Learning and Communication. NBER Working Paper No. 20139.
- Conley, T. & Udry, C. (2010), Learning About a New Technology: Pineapple in Ghana,? *American Economic Review*, 100(1): 36-69.
- Bardhan, P. & Udry, C. (1999), *Development Microeconomics*, New York: Oxford University Press, chapter 12.
- Munshi, K. (2004). Social learning in a heterogeneous population: technology diffusion in the Indian Green Revolution. *Journal of Development Economics*, 73(1): 185-213.
- Munshi, K. (2008). Information Networks in Dynamic Agrarian Economies. *Handbook of Development Economics IV*.