ARE 251/Econ 270A Elisabeth Sadoulet / Alain de Janvry
Fall 2004

Final Examination
(1 hour 30 mn, 25% of final grade, 30 points)

Respond concisely in words and equations to 3 of the following 4 questions (10 points each)

1. Growth and shocks.
Questions on: Stefan Dercon, "Growth and Shocks: Evidence from Rural Ethiopia", *Journal of Development Economics*, Vol. 74, No. 2 (2004).

a. What is the basic model that is estimated in this paper? Justify its formulation and the choice of variables.
b. What are the data used in the paper?
c. What is the nature of the endogeneity problems encountered in the paper? Explain the empirical strategy used in the paper to get around these problems?
d. Use the results in columns (1), (4), and (5) in Table 5, reproduced below, to summarize the main findings of the paper.

2. Evaluation of a decentralized program
a. What are the main arguments for and against decentralization of the provision of public goods?
b. What are the specific challenges encountered for the evaluation of a Community Driven Development program?
c. What does the paper by Alderman on Albania ("Do Local Officials Know Something We Don't? Decentralization of Targeted Transfers in Albania", *Journal of Public Economics*, 2002) contribute to these hypotheses? Explain the underlying framework, the empirical strategy, and the main findings.
d. What does the paper by Jean-Paul Faguet on Bolivia ("Does Decentralization Increase Government Responsiveness to Local Needs? Evidence from Bolivia", *Journal of Public Economics*, 2004) contribute to these hypotheses? Explain the underlying framework, the empirical strategy, and the main findings.

3. Impact of group-based credit programs on poor households
Questions on: Pitt and Khandker, "The Impact of Group-Based Credit Programs on Poor Households in Bangladesh: Does the Gender of Participants Matter?", *Journal of Political Economy*, 1998.

a. What are the data used in the paper?
b. How would you set up a double-difference estimator of the impact of access to credit on a household welfare measure with these data? Be very specific on the groups that are compared and the exact impact that is measured.
c. Describe the model that Pitt and Khandker estimate. What is the nature of the endogeneity problems encountered in the paper? Explain the empirical strategy used in the paper to get around these problems?
d. What are the main results that Pitt and Khandker find on per capita expenditures?

4. Sharecropping contracts
If a contract where gross output is shared while some inputs are entirely provided by one of the partners is inefficient, why is it observed? To explore this question:

a. Explain and show why there is an inefficiency in sharecropping.
b. Describe two setups where it may be worthwhile for the landlord (principal) to choose this contract over alternative options in spite of the inefficiency of sharing. For each, briefly explain:
    What is output sharing expected to achieve?
    How does the landlord set the optimal contract?
c. When there are labor and insurance market failures, does the share contract fully compensate for the insurance market failure?

Table 5
Econometric results: basis specification

	Δln food cons (1)		Δln total cons (2)		Δln cal cons (3)		Δln food cons (4)		Δln food cons (5)	
	Coefficient	*p*-value	Coefficient	*p*-value	Coefficient	*p*-value	Coefficient	*p*-value	Coefficient	*p*-value
ln food cons$_{t-1}$	−0.319	0.000					−0.318	0.000	−0.316	0.000
Village mean ln food cons$_{t-1}$	0.213	0.000					0.216	0.000	0.075	0.000
ln total cons$_{t-1}$			−0.294	0.000						
Village mean ln cons$_{t-1}$			0.461	0.000						
ln calories$_{t-1}$					−0.284	0.000				
Village mean calories$_{t-1}$					0.194	0.000				
Rainfall shocks$_t$	0.514	0.000	0.278	0.023	0.608	0.000				
Rainfall shocks$_t$ (last year only)							0.211	0.000	0.139	0.000
Rainfall shocks$_t$ (preceding years)							0.299	0.000	0.355	0.000
Rainfall shocks$_{t-1}$									0.160	0.001
Adult serious illness	−0.019	0.421	−0.029	0.383	−0.072	0.037	−0.016	0.495	−0.029	0.383
Crop shock (−1 is worst)	0.109	0.075	0.037	0.633	0.195	0.029	0.075	0.213	0.037	0.633
Livestock shock (−1 is worst)	0.015	0.757	−0.008	0.894	−0.052	0.453	0.011	0.811	−0.008	0.894
Constant	0.501	0.000	−0.569	0.070	0.440	0.013	0.481	0.000	1.011	0.000
Number of observations	682		402		674		682		682	
Number of groups	342		201		342		342		342	
Overall r^2	0.42		0.30		0.29		0.44		0.40	
Hausman-test *p*-value chi^2 (10)	0.986		0.992		0.998					

Real consumption growth between $t-1$ and t. Dependent variable: change in ln consumption per adult between survey waves (1989–1994 and 1994–1997). Fixed effects estimator.

Regressions control for demographic changes, Δln (male adults + 1), Δln (female adults + 1), Δln (male children + 1), Δln (female children + 1). Adult serious illness = whether adults had a serious illness in the period between survey rounds. Livestock shocks: index of self-reported extent of problems related to fodder and water, 0 is best (no problems) and −1 is worst possible outcome. Non-crop shocks: index of self-reported extent of problems on plots, beyond rain, 0 is best and −1 is worst. Rainfall shocks at t are defined as the difference in the logarithms of rainfall levels at t and $t-1$. Rainfall shocks at $t-1$ are defined as the difference in logarithms of rainfall levels at $t-1$ and $t-2$. Rainfall shocks at t (last year only) only consider the rainfall in the 12 months preceding t and $t-1$. Rainfall shocks at t (preceding years) only consider the average rainfall in the relevant period for t and $t-1$, but excluding the rainfall in the 12 months preceding t and $t-1$. Sample and group size differ only due to missing observations for particular variables.