

Department of Economics  
Queen's University

**ECON239: Development Economics**

Professor: Huw Lloyd-Ellis

**Assignment #3**

Due Date: 4.00pm, Friday November 19, 2010

**Section A** (40 percent): Briefly discuss the validity of each of the following statements. In your answer define or explain as precisely as possible any terms or concepts which are underlined, with particular reference to the context in which they are being used. The text for each answer should be no longer than a page, but you also should also include diagrams or examples where appropriate. They have equal value.

**A1.** Privatization of land rights is an appropriate response to the so-called "tragedy of the commons" problem.

**A2.** Redistributive land reforms are unnecessary because land markets should ensure an efficient allocation of land.

**A3.** Trade-credit interlinkages can be a way of increasing the economic surplus involved in a credit transaction.

**A4.** The expansion of formal sector lending at low interest rates is likely to result in a more equitable distribution of credit in LDCs.

**Section B** (60 percent): Answer the following questions. They all have equal value.

**B1.** Please read the article "The Evolution of the World Bank's Land Policy: Principles, Experience and Future Challenges" by Deininger and Binswanger, and answer the following questions. Answers may be provided in point-form. The article can be downloaded from the Course Outline page of the ECON239 web site.

(a) How has experience with land reforms challenged the World Bank's earlier assumptions as reflected in its 1975 Land Reform Policy Paper"?

(b) What advantages do owner-operated farms have over larger operations ? What factors could outweigh these advantages ? Explain.

- (c) Summarize the main problems that lead land markets to perform imperfectly. Why are “distress sales” likely to lead to inefficient land allocation ? Why might rental markets be more efficient in some cases ?
- (d) Why does the World Bank support redistributive land reform ? What factors are responsible for their common lack of success ?
- (e) How has the World Bank’s thinking changed with respect to communal tenure systems ? Explain why.

**B2.** Consider a development bank that is lending to rural borrowers and wants to just break-even. All borrowers require a loan of \$100 and the gross cost to the bank of making such a loan is \$160. There are two types of borrower: type 1 and type 2. A type 1 borrower can get a gross return of \$200 with certainty. A type 2 borrower can obtain a gross return of \$360 with probability 0.75 and 0 otherwise. The opportunity costs for type 1 and type 2 borrowers are, respectively, \$18 and \$20. However, when extending the loan, the bank does not know the types of each borrower and only knows that 50% are of type 1 and 50% are of type 2.

Assume to begin with that the bank lends to each borrower on an individual basis.

- (a) Compute the gross repayment required by the bank from each borrow in order to just break even on average, assuming both types borrow. What is the implied interest rate on loans?
- (b) Under these terms would both types of borrower actual want to borrow? What is the implied break-even interest rate given this fact.

Now suppose the bank can lend to groups consisting of two borrowers each. Assume that the bank is able to impose a joint responsibility default clause: a borrower will have to pay for her partner when her partner fails or else both borrowers will be excluded from future financing. Assume also that the borrowers know each others’ types and engage in positive assortative matching when forming their groups.

- (c) Assuming that successful type 2 borrowers can always repay the debt of unsuccessful ones, what are the possible outcomes of a lending contract with a risky pair? What is the probability of each outcome
- (d) Compute the break-even interest rate in this case.
- (e) Verify that the assumption made in part (c) is valid. Will both types of borrower want to borrower under these terms? Explain.