Department of Economics
Queen's University

ECON239: Development Economics

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Assignment #2

Due Date: 1:00 pm, Monday November 9, 2009

Section A (40 percent)**:** 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. Your answer should be no longer than a page (single–spaced), and you should include diagrams or examples where appropriate. All questions have equal value.

A1. The idea that historical settler mortality rates were a key determinant of current economic development via their impact on economic institutions is consistent with the Chicago School view of economic development.

A2. The evidence that sharecropping results in low productivity suggests that people in the rural sector of many developing countries are irrational.

A3. Redistributive land reforms, though potentially Pareto–improving, are politically infeasible.

A4. When lenders face problems of adverse selection, rural credit markets may be both inequitable and inefficient.

A5. Credit rationing by formal sector banks in the rural sector of LDCs can be viewed as a response to the consequences of limited liability and asymmetric information in lending.

Section B (60 percent)**:** Answer the following **Long Questions.**

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. Suppose the relationship between the value of crop yield net of production costs, y, and farm size in hectares h, in a particular region is given in the following table:

h	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
y	118	135	151	166	180	193	205	216	226	235	243	250	256	261	265

(a) Plot this relationship on graph paper (or using a spreadsheet), placing hectares on the x-axis and yields on the y-axis. Farmer A has 5 hectares of land and Farmer B has 15 hectares of land. What is their total combined yield, net of production costs ?

(b) If you were Farmer A, what is the highest price, $\bar{p}$, you would be willing to pay for one more hectare of land. Make the same calculation for Farmer A's maximum purchase price for one additional hectare if he initially owned 6, 7,..., 16 hectares of land. Plot the curve representing the relationship between hectares bought and Farmer A's maximum purchase price. What would you call this curve?

(b) If you were Farmer B, what is the lowest price, $\underline{p}$, at which you would be willing to sell a hectare of land. Make the same calculation for Farmer B's minimum sale price for if he initially owned had 14, 13,..., 4 hectares of land. Plot the curve representing the relationship between hectares sold and Farmer B's minimum sale price. What would you call this curve?

(c) If the two farmers were able to trade land freely, what would you expect their respective land-holdings to be after trade ? Explain. What would their total combined yields net of production costs be in this case?

Now suppose that, by coercing a local politician, Farmer B, is able to gain fully subsidized and exclusive access to a new high–yield variety of crop. As a result, her land–production relationship shifts and becomes

h	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
y	354	405	453	498	540	579	615	648	678	705	729	750	768	783	795

Farmer A's production opportunities do not change.

(d) Starting from the initial situation where Farmer A has 5 hectares and Farmer B has 15 hectares, would you expect Farmer B to sell land to Farmer A at a mutually acceptable price ? Explain.

(e) What would you predict would be the consequences of allowing free land trade in this case ? Explain. What do you think would happen if the two farmers had equal access to the subsidies ?

B3. In a given year, Aleem receives 100 loan applications for 200 Nairu each. He spends a total of 2 working days and 10 Nairu obtaining information about an applicant for each loan. He expects to lend to 50% of those farmers who apply for a loan. Aleem also runs a store where he can earn 20 Nairu per day when open. He incurs 8000 Nairu per year in overheads. Aleem obtains funds at a cost of 10% and faces no bad debt or late repayment problems.

(a) What is the expected cost to Aleem of an additional loan, as a percentage of the loan size ?

(b) Calculate the average cost of administering a loan as a percentage of the loan size. Assume that overhead is allocated to different activities in proportion to the time spent in each and that there are 320 working days per year (after removing holy days and family occasions, etc.).

Assume that Aleem's marginal costs do not vary with the amount he lends. The demand for loans from Aleem depends negatively on the interest rate that he charges and positively on the interest rates charged by other moneylenders.

(c) What interest rate should Aleem optimally be charging if the credit market is in a long–run equilibrium with free entry ? Explain.

(d) What are the implications of market segmentation and localized monopolistic competition for government attempts to expand formal credit in the rural sector ?

(e) An alternative policy is to offer low–interest lending to money–lenders, such as Aleem, so as to lower their costs of funds. Explain why this may not result in low interest rates loans to the borrowers.