Development Economics
Key questions (4)

Read Morduch (1999) (you can skip sections 4: *Profitability and Financial Sustainability*, 5: *Costs and Benefits of Credit Subsidies*, 6: *Social and Economic Impacts*, and 7: *Savings*.) and Ray (1998) pp578-584, and answer the following questions regarding microfinance.

1. Economists consider the following factors (among others) as potential reasons of high repayment rates in microfinance institutions. Explain briefly why each of them could lead to high repayment rates in microfinance institutions (about 3-5 lines each).
   i) peer selection
   ii) peer monitoring
   iii) progressive lending

2. Consider two projects a poor farmer, Pal, can undertake. Both projects need an initial investment of \$2500. Project A produces a fixed revenue of \$3000 (with probability 1.0). Project B produces revenues of \$5000 with probability 0.5 and \$0 with probability of 0.5. Suppose that a microfinance institution, Banco Micro, requires four guarantors to provide a loan to Pal. Here, guarantors mean that if Pal fails to repay the loan, Banco Micro will never provide loans in the future not only to Pal but also to his four guarantors. (Pal's guarantors are also poor, so they have no assets that work as collateral.) Suppose that Banco Micro lends money to Pal with interest rate 10% per annum. Assume that Pal is forced to repay the loan as long as he has enough resources to do so (no strategic default). However, if he does not have enough resources to repay the loan, his liability to repay the loan will be exempted. Pal is poor with no assets at all, and Banco Micro has nothing to do about it. However, if Pal fails to repay the loan, he is subject to a social penalty imposed by his four guarantors whose access to future loans is destroyed. Suppose that the monetary value of the social penalty is given by m. For simplicity, assume that Pal is risk-neutral. (Our qualitative conclusion is the same with more realistic risk-averse Pal.) Assume that a legal system to honor credit transactions is absent or weak in the rural village where Pal and

his guarantors reside, implying that Pal will receive no serious legal penalty in the future even if Pal defaults on a loan, (but, of course, Pal is subject to the social sanction).

i) Suppose that Banco Micro does not require guarantors to provide a loan to Pal. Calculate the expected profit for Pal under each project (Project A and Project B). Which project does Pal choose?
ii) Now put back four guarantors in the picture. Banco Micro does require four guarantors to provide a loan to Pal. Calculate the expected profit for Pal under each project (Project A and Project B).
iii) Under what condition (for m) does Pal choose Project A if Banco Micro requires four guarantors?
iv) Briefly describe, in words, the main message of this question (about 3-4 lines).