

# Credit I

11/20/2008

## Today's Agenda

1. Who provides credit (14.2.1)?
2. Theories of informal credit markets (14.3)

So far--

- We have studied markets in land and labor
- Imperfections arise in these markets
- Source of these imperfections are informational, poor institutions (e.g. legal) and also spillovers from imperfections in other markets e.g. credit

Basics--

- Credit plays an important role because many economic activities are spread out over time
- Two features of a credit market which prevent smooth functioning:
  - i. Information problems: It is often very difficult to monitor what is being done with a loan. e.g. Possibility of involuntary default.
  - ii. Enforcement problems: There is an incentive for strategic or voluntary default—a situation in which the borrower can repay the loan but just does not have an incentive to.
- Demand for credit/capital can take three forms: fixed capital, working capital, consumption capital
- We will focus on the last two because of need for working capital due to low incomes of those in rural sector and need for consumption capital in agriculture due to its seasonal nature

## 1. Who provides credit?

### A. Institutional Lenders

- Formal lenders like government banks, commercial banks, credit bureaus
- Main problem for institutional lenders: do not have personal knowledge regarding characteristics and activities of their clientele
- For example, these agencies cannot monitor how loans are being used

- What went wrong with the market here--- borrower has *limited liability*
- Thus, formal lenders will want physical collateral which poor borrowers do not have

#### **B. Informal Lender**

- Informal lenders may be able to fill in this gap
- One role: accept collateral in other forms
- Another role: better information
- As formal credit markets have improved, formal sector lending has increased
- India: 7.2% in 1951 to 61.2 in 1981
- Nigeria: 7.5% of all loans still informal in 1980s

## **2. Theories of informal credit markets**

- In world of full information and enforcement, credit markets would clear at the equilibrium “price” (interest rate)
- Unfortunately, rural credit markets far from such perfect functioning
- Let’s look at some models of how informational and enforcement problems lead to imperfections

#### **A. Lender’s Monopoly**

- We often observe interest rates in informal sector are higher than those observed in formal sector
- One explanation—lender has exclusive monopoly power and therefore charges higher price
- Some problems with this explanation—empirical evidence shows moneylenders were “thick on the ground”
- Also, we will see next class that this argument also lacks theoretical power

#### **B. Lender’s Risk Hypothesis**

- A more satisfactory explanation of high interest rates
- The interest rate premium that the lender earns above his opportunity cost (what he could earn by investing his money in a formal bank) is due to *risk of default* (both voluntary and involuntary)
- Let’s examine in more detail:

- Data shows that lenders manage to lower default risk

**C. Default and fixed-capital loans**

- Previous analysis assumed default probability is independent of amount to be repaid
- May not be true—larger amounts to be repaid may lead to greater risk of default
- So this means that high enough interest rate may not be able to take care of risk because interest itself affects risk of default
- What does this tell you about which kind of capital will be more likely to be financed by informal lenders?

**D. Default and collateral**

- Another imperfection that arises due to risk of default: collateral
- Comes in different forms: land, labor, ration cards, output
- Two kinds of collateral: valued by both parties or valued by just borrower
- Either kind of collateral will prevent strategic/voluntary default
- Collateral valued by both parties will also cover lender in event of involuntary default
- Model of collateral where the point of credit is getting the collateral
- Also, another view of high interest rates

- There may be a situation in which lender does not want the loan repaid! Would rather get the collateral for cheap
- Thus, collateral that is of high-value to both lender and borrower may paradoxically result in credit transactions with excessive rates of default
- Lender will set high interest rates to induce default

- May explain why land inequalities rise in poor societies
- Lender may do something like this to get cheap labor as well

**E. Default and credit rationing**

- Another implication of the risk of default—credit rationing
- Credit rationing: a situation in which at the going rate of interest in the credit transaction, the borrower would like to borrow more money but cannot
- Let's see how risk of default leads to credit rationing

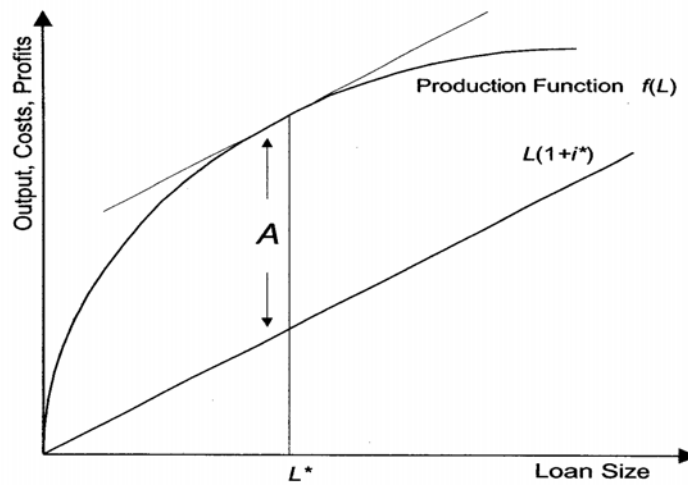


Figure 14.2. Maximizing the rate of interest  $i$  on a loan.

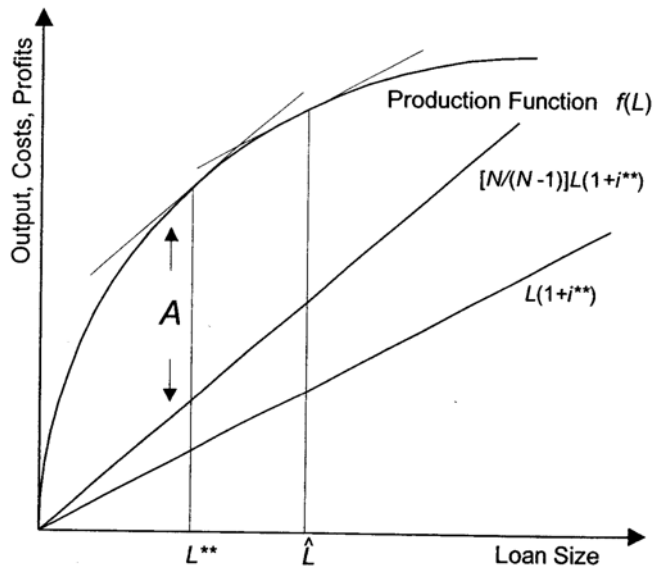


Figure 14.3. Loan contracts when default is possible.

- At the optimum credit transaction, lender will advance  $L^{**}$ : the marginal product of the loan equals  $N/(N-1)(1+i^{**})$  and not the true marginal product of the loan as faced by the borrower which is  $1+i^{**}$
- Borrower would like to borrow more at the going interest rate  $i^{**}$  ( $L$ -hat) but cannot
- But the moneylender will not react to such a situation because a higher loan increases the return to a defaulter by allowing him to pocket more money. A higher interest rate increases the return as well, by allowing the defaulter to save on the repayment of more interest.
- Thus, the moneylender's preferred contract involves credit rationing

**Next time: Finish Chapter 14**