BS2551 Money Banking and Finance

Commercial Banking

Introduction

- Banks provide liquidity services – distributors of currency and producer and server of demand deposits (current accounts). Banks offer a form of liquidity insurance to depositors (you can always get your money out without any notice) as well as safekeeping for wealth. They also offer means for making payments, e.g. to pay bills.

- Banks are a link to monetary policy. The CB sets the interest rate and that is passed on by the banks to the rest of the economy, notably mortgage borrowers or personal loans.

- Banks undertake lending and sale of guarantees (debt financing). This is undertaken by exchanging a short term liability (deposit) with a long term asset (a loan), which is also often larger than the deposits that finance it.

- Financial advice – banks have economies of scale in information gathering that give them advantages over households trying to invest directly themselves (e.g. a stock ISA).

Key Concepts in Banking

Match transactors – brokerage

- Fee based compensation
- No position involved, although reputation risk
- Basis of cost of gathering information, reusable information at zero cost.
- Can be reused cross-sectionally or over time.

Examples, transaction services and financial advice.

Manage Risks and transform nature of claims.

- Provide better alternative to finding a counterpart for every transaction.
- Transformations including duration, credit risk, liquidity and currency.
- Mismatch involves risk of loss to the intermediary.

- Diversify (mutual funds) shift risk to others (derivatives) or accept exposure (banks).

Examples: monitoring, liquidity creation.

Key theoretical problems of banking: asymmetric information and incentive problems.

Adverse Selection: pricing problem induces low quality of sellers in the market, where asymmetric information prevents buyers from distinguishing quality. Example of adverse selection: used cars.

Moral hazard: incentive of beneficiary (agent) of a fixed value contract in presence of asymmetric information and incomplete contracts, to change behaviour after contract has been signed, to maximise wealth to the determinant of provider of a contract (principle). Example: the difference between moral hazard and fraud.

State	**Payoff State 1**	**Payoff State 2**	**Market Value 1**
a	10	10	7(T), 5(D), 2(E)
b	7	7	5.5(T),3(D), 2.5(E)

Banks and Screening

To overcome adverse selection, banks can screen quality of entrepreneurs and firms, they communicate information at lower cost then borrowers, then sell claims to a diversified portfolio to investors. Example, Experian and credit rating.

Banks and Monitoring

Banks act as monitors to overcome asymmetric information, and risk of moral hazard.

- Technology of monitoring offers economies of scale (e.g. obtained from ongoing credit relations).

- Diversification lowers borrowing costs (projects are too large for investors to finance alone).

In reality, screening and monitoring takes place via the process of credit analysis.

Credit Analysis and Credit Information

Analysis takes place to assess ability and willingness of borrower to repay. Critical to do the analysis before the lending (screening) and also periodically when the loan is outstanding (monitoring).

Underlying issue – bank owns the asset while borrower has the option to not repay, at the cost of going bankrupt.

Factors in Credit Analysis:

- Capacity for the borrower to obtain the loan.
- Character (borrowers' reputation and reputation obtained from previous repayment of loans).
- Capital (money repaid at the beginning of a loan to decrease risk of repayment, e.g. deposit on a house).
- Collateral (additional assets that borrower mat have that reduce the risk of repayment of the loan).

- Conditions (economic conditions, such as changes in interest rates that may affect the individuals' ability to repay the loan).

Introduction to Bank Risks

Risk is the danger that unforeseen circumstances can generate a continuous stream of large changes in cash flows. Banks seek to profit from risk by accepting it, hedging against it of diversify in an appropriate manner.

Risk and Uncertainty – risk may be modelled using probability analysis (company failure models), while events subject to uncertainty cannot (financial crises, wars).

Main forms of risk

Credit risk – risk that a party to contract fails to fully discharge terms of the contract.

Interest rate risk – risk that occurs due to interest rate changes.

Liquidity risk – risk that asset owner cannot realise the full market value of the asset when the sale is desired.