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Regulation of Financial Institutions

1. Financial Intermediation–Review
    a. Review: What is a financial intermediary?
    b. What services do financial intermediaries offer?
    c. What does the balance sheet of a bank look like?

2. Financial Institutions face Asymmetric Information Problems
    a. In an earlier class, we learned that an important problem faced by all financial institutions is the problem of asymmetric information. Borrowers know more about their use of funds than lending institutions know.

    b. The standard loan contract provides a partial remedy for asymmetric information problems faced by lenders.

    c. In this class we will focus on additional problems and remedies associated with asymmetric information.

3. Banking Regulation
    a. The goal of regulation is to counter the effects of asymmetric information on the financial services industry.

    b. Regulation involves a fundamental tradeoff.
        i. Preserving confidence in the financial system.
        ii. Creating inefficient incentives.

    c. Specific types of regulations.

4. Anatomy of a Financial Crisis-the East Asia Crisis of 1997-98.
    a. The primary purpose of international financial transactions is to channel funds from savers to the most productive uses world wide.

    b. Changes in the exchange value of currencies represent risks for international borrowers and lenders.

    c. There are several types of financial institutions involved with international financial transactions.

    d. How the East Asia Crisis Developed

1. **Financial Intermediation**

   a. Financial intermediaries channel funds from savers (those who wish to move funds from the present into the future) to borrowers (those who wish to move funds from the future into the present).

   b. Services Provided by Financial Intermediaries

      i. Financial Institutions “repackage” the obligations issued by borrowers so that they are more attractive to savers. Repackaging provides several types of valuable services: Diversification of risk, Risk Pooling, Creation of liquidity, Underwriting and Maturity intermediation.

      ii. Financial Intermediaries reduce transaction costs through economies of scale.

      iii. Financial Intermediaries specialize in collecting information about credit worthiness of borrowers.

   c. The consolidated balance sheet of commercial banks in the United States provides important facts that serve as a backdrop for discussion of bank regulation. See the balance sheet from our exercise.

2. **Information Problems Associated with Borrowing and Lending**

   a. Asymmetric information describes the situation in which one party has better information than another.

      i. Adverse selection results when a lender cannot distinguish between good-risk and bad-risk loan applicants. If the lender prices the loan to allow for losses from bad-risk applicants, good-risk applicants leave the borrowing pool.

      ii. Moral hazard occurs when a financial contract creates an incentive for a borrower to use funds in riskier ways than they promised when they borrowed the funds.

   b. The standard loan contract provides a partial remedy for asymmetric information problems.

      i. The standard loan contract calls for a fixed repayment by a borrower. In this way the borrower has no incentive to under-report the success of the project for which borrowed funds were used.

      ii. The standard loan contact calls for the lender to monitor the project if the borrower reports that it cannot repay. It also calls for the lender to take all of the proceeds from the project (and perhaps additional collateral) if the borrower reports a failed project.

3. **Regulation of Financial Institutions**

   a. The goal of regulation is to counter the effects of asymmetric information on the financial services industry. If left unchecked, asymmetric information may threaten the ability of financial institutions to perform their primary function-channeling funds from savers to the most deserving investment projects.

b. Regulation involves a fundamental tradeoff.
   i. Preserving confidence in the financial system.
   ii. Creating inefficient incentives.

c. Specific types of regulation (this is a partial list)
   i. Deposit Insurance. Currently deposit accounts are insured up to $100,000. Deposit insurance keeps depositors from running their bank when they hear news that suggests that banks are “in trouble”. Deposit insurance also keeps depositors from monitoring the lending and other business practices of their banks.

   ii. Restrictions on asset holdings. The Glass-Steagall Act of 1933 separated commercial and investment banking in the U.S. and made it illegal from commercial banks to hold equity and corporate bonds. Some economists have argued that these prohibitions actually made banks riskier by keeping them from holding a more diversified portfolio of assets. The Gramm-Leach-Biley Act of 1999 repealed Glass-Steagall.

   iii. Capital Requirements. Bank capital requirements take two forms. The leverage ratio (bank capital divided by bank assets) must exceed 5 percent for a bank to be considered well-capitalized. If it is below 3 percent, the bank faces regulatory restrictions. The Basel Accord is an agreement among banking officials in 100 countries to impose risk-based capital requirements. The Basel Accord recognizes four categories of risky asset.

   iv. Bank Chartering. Banks must obtain a charter from the Comptroller of the Currency (national banks) or from the state banking authority. Limiting entry makes banks more profitable and thus provides an incentive for banks to protect their charters. On the other hand, limited entry raises costs to bank customers.

   v. Disclosure Requirements. Regulators require that banks adhere to certain standard accounting principles and disclose information that helps the market assess the quality of a bank’s asset portfolio and enables stock holders, creditors, and depositors to monitor bank behavior.

4. **The East Asia Financial Crisis of 1997-98**

a. The primary purpose of international financial transactions is to channel funds from savers to the most productive uses world wide.

b. Changes in the exchange value of currencies represent risks for international borrowers and lenders. If international financial investors cared only about expected returns to investments then they would move funds throughout the globe until interest rates (adjusted for expected changes in exchange rates) were equal everywhere.

c. There are several types of financial institutions involved with international financial transactions.

   i. International banks provide risk sharing, liquidity, and information services to firms and individuals engaged in international trade and finance. Over 160 US banks have subsidiaries or branches abroad with about $500 billions of assets. As of 1998,

foreign banks held about $900 billions of assets in the US accounting for about 16 percent of total bank assets.

ii. Central banks sometimes use international currency reserves to buy and sell their domestic currency in order to stabilize their exchange rate and, in some cases, in order to keep their exchange rate pegged to an agreed upon value.

iii. The Bretton Woods agreement (which created a system of fixed exchange rates from 1945 until 1971) created the International Monetary Fund. The IMF was designed to be a lender of last resort to prevent short-term economic fluctuations from disturbing the system of fixed exchange rates. The idea was to promote the growth of world trade by making loans to countries that experienced short-run balance-of-payments difficulties. In practice, the IMF encourages domestic economic policies that are consistent with exchange rate stability and gathers data to use in monitoring member countries. Currently over 180 countries belong to the IMF.

iv. The Bretton Woods agreement also created the World Bank to make long-term loans to developing countries. These loans were designed to build infrastructure (roads, power systems, bridges, water supply systems). The World Bank raises funds by selling bonds in the international capital market.

d. How the East Asia Crisis Developed (see Mishkin, Frederic, "Global Financial Instability: Framework, Events, Issues," *Journal of Economic Perspectives*, 13 (4), pp. 3-20)
   i. The crisis involved Thailand, Korea, Malaysia, Indonesia, and the Philippines.
   ii. At the onset of the crisis, inflation was low and fiscal deficits were not a serious problem in the crisis countries.
   iii. Lending booms occurred in all crisis countries before the crisis. Capital inflows were large but turned around rapidly once the crisis began. Research suggests that increase in lending outstripped the ability of the banks regulatory agencies to perform their traditional role in assessing credit risk. In addition, corruption was a factor in some crisis countries.
   iv. Deterioration in bank balance sheets occurred before the crisis began.
   v. Central banks were pegging their exchange rates to the dollar but did not have large reserves of hard currencies before the crisis.
   vi. Individual events such as business failures triggered declines in security prices. The decline in securities prices weakened the banks and lowered the value of collateral. Capital began to flow out of the countries and panic spread to other countries in similar circumstances.
   vii. The cental banks gave up the peg and let the currencies depreciate.
   viii. Banks and businesses now had huge increases in debt service since many loans specified payments in dollars.
   ix. Central banks were caught in a bind. To defend their currencies required high interest rates. To support their banks required low interest rates.
   x. Financial institutions became so weak that adverse selection and moral hazard problems overwhelmed them and they no longer were able to perform their primary function.