

## **Tradition: Asset Management**

Traditionally, a bank would receive deposits from its community. In a small community, there might be only one bank, so there would be no competition for deposits. The deposits would be stable, and the bank focussed on the management of its assets.

Before new legislation in 1980, banks had only limited ability to compete for deposits. Paying interest on checking deposits was prohibited by law. There was a legal limit on interest on time deposits; typically all banks paid this amount, so depositors had no reason to prefer one bank to another.

Taking its deposits as given, the bank would hold a diversified portfolio of assets—commercial and industrial loans, mortgages on real estate, consumer loans, government bonds.

## **Modern: Liability Management**

Today banks compete for deposits, by offering higher interest or better service. A bank may obtain deposits from other parts of the country or even from overseas.

In particular, a bank can sell more certificates of deposit by offering more interest.

## Reserve Requirement

*Bank reserves* refer to cash-on-hand or to the deposit (*federal funds*) of the bank at the Federal Reserve. The Federal Reserve sets the reserve requirement on banks. The primary reserve requirement is to keep 10% of checking deposits as reserves.

The legal reserve requirement on banks is much higher than what banks need to meet normal daily fluctuations. Since reserves do not earn interest, a bank keeps its reserves at the legal minimum.

## **Federal Funds**

A bank with deficient reserves may meet the reserve requirement by borrowing federal funds from another bank with excess reserves. Supply and demand set the interest rate (the federal funds interest rate) on this borrowing. The Federal Reserve conducts monetary policy to achieve a target value for the federal funds rate.

A few aggressive banks have financed a significant portion of their assets by continuous borrowing of overnight federal funds.

## Discount Borrowing

Unexpected large withdrawals can cause a shortfall of reserves for a bank. In this circumstance, a bank can borrow temporarily from the Federal Reserve to meet its reserve requirement, but soon the bank must rearrange its assets and liabilities to eliminate the shortfall.

The interest rate for such borrowing is the *discount rate*, a non-market interest rate set somewhat arbitrarily by the Federal Reserve. Today the value of the discount rate is not a significant policy variable.

## **Matching of Assets and Liabilities**

A basic principle for a financial intermediary is the matching of its assets and liabilities. Both should be the same type, to reduce risk.

If the assets and liabilities are dissimilar, then the market value of each might move differently. If the assets fall in value but not the liabilities, then the intermediary might be bankrupt.

If the assets and liabilities are the same type, then if the assets fall in value the liabilities should also fall in value by a similar amount, so the intermediary will not be bankrupt.

## **Equity Versus Debt**

If the assets were equity (stock) and the liabilities were debt, then a drop in the stock market could cause bankruptcy.

For this reason, banks in the United States are not allowed to buy stock.



## **Long-Term Versus Short-Term Debt**

A potential problem for a bank is to have long-term debt as assets but short-term debt (deposits) as liabilities.

If the market interest rate rises, the assets lose value, but not the liabilities, and the bank can be bankrupt.

In this circumstance, the bank might be able to continue to operate for some time, by denying the problem by carrying the assets on the balance sheet at the original cost. However the bank will have to pay higher interest to keep its deposits, while it is not receiving higher interest on the long-term assets.

Draining the bank, the high interest paid will force bankruptcy later.

## **Savings and Loan Crisis**

This event occurred in the early 1980's. Savings and Loan Associations are banks that specialize in home mortgage loans (long-term debt), financed by deposits. The market interest rate soared, and many went bankrupt. The federal government paid several hundred billion dollars to cover insured deposits.

## **Life Insurance**

The matching principle applies to any financial intermediary.

A life insurance companies can predict quite accurately the dollar claims that it will pay each year. Thus these liabilities have a cash flow resembling long-term debt.

To avoid risk, the life insurance company matches its assets to these liabilities, by buying long-term bonds and mortgage loans.

## **Off-Balance Sheet Activity**

Today banks also receive significant revenue via fees for “off-balance sheet activity.”

There is now a national market in home mortgages, in which mortgages are “securitized.” A bank can make a home mortgage loan to a local borrower and then sell the mortgage on the national market. The bank continues to collect the monthly payment from the borrower and passes the payment on to the new owner, and it receives a fee for this service.

## Derivatives

Some banks offer derivative contracts to interested customers. The derivative resembles a bet, in that the customer receives money if one event occurs, but must pay money to the bank if another event occurs. The derivative is like insurance, by shielding the customer from certain risks.