MODULE 34

34 Banking and Money Creation

The Monetary Role of Banks

- A bank is a financial intermediary that uses liquid assets in the form of bank deposits to finance the illiquid investments of borrowers.
- A **T-account** is a tool for analyzing a business's financial position.

Assets		Liabilities	
Building	$30,000	Loan from bank	$20,000
Smoothie-making machines	$15,000		

The Monetary Role of Banks

- **Bank reserves** are the currency banks hold in their vaults plus their deposits at the Federal Reserve.

- Banks do not hold the full value of deposits as reserves. This is called a **fractional-reserve banking system**.

- The **reserve ratio** is the fraction of bank deposits that a bank holds as reserves.

Bank Runs & Bank Regulations

- A **bank run** is a phenomenon in which bank depositors try to withdraw their funds due to fears of a bank failure.
- Historically, they have often proved contagious.
- **Deposit Insurance** guarantees that depositors will be paid even if the bank can't come up with the funds.
- The FDIC currently guarantees the first $250,000 of each account.

Bank Regulations

- **Reserve Requirements** - rules set by the Federal Reserve that determine the minimum reserve ratio for a bank. For example, in the United States, the minimum reserve ratio for checkable deposits is 10%.

- The **discount window** is an arrangement in which the Federal Reserve stands ready to lend money to banks in trouble.

Determining the Money Supply

Start with a $1000 deposit at First Street Bank:

Assets		Liabilities	
Loans		Deposits	+$1,000
Reserves	+ $1,000		

Determining the Money Supply

Next, First Street Bank makes a loan for $900:

Assets		Liabilities
Loans	+ $900	No change
Reserves	– $900	

How Banks Create Money

TABLE 34-1

How Banks Create Money

	Currency in circulation	Checkable bank deposits	Money supply
First stage Silas keeps his cash under his bed.	$1,000	$0	$1,000
Second stage Silas deposits cash in First Street Bank, which lends out $900 to Mary, who then pays it to Anne Acme.	900	1,000	1,900
Third stage Anne Acme deposits $900 in Second Street Bank, which lends out $810 to another borrower.	810	1,900	2,710

Reserves, Deposits, and the Money Multiplier

- **Excess reserves** are bank reserves over and above its required reserves. Assume they are zero.

- The total amount of money created from the $1000 deposit is:

$$= \$\mathbf{1,000} + \$\mathbf{1,000} \times (\mathbf{1} - \boldsymbol{rr}) + \$\mathbf{1,000} \times (\mathbf{1} - \boldsymbol{rr})^{\mathbf{2}} + \$\mathbf{1,000} \times (\mathbf{1} - \boldsymbol{rr})^{\mathbf{3}} + \ldots$$

- This can be simplified to: $\$\mathbf{1,000} \times (\mathbf{1}/\boldsymbol{rr})$, where $(\mathbf{1}/\boldsymbol{rr})$ is the **money multiplier**.

The Money Multiplier in Reality

- The **monetary base** is the sum of currency in circulation and bank reserves.
- The **money multiplier** is the ratio of the money supply to the monetary base. In reality, this will be less than $(\mathbf{1}/\boldsymbol{rr})$.