Banking and The Management of Financial Institutions (1)

This set of slides was developed based on the reference books as listed in the course document.

Chapter Preview

- Banks play an important role in channeling funds (about $6 trillion annually) to finance productive investment opportunities.
- They provide loans to businesses, finance college educations, and allow us to purchase homes with mortgages.

The Bank Balance Sheet (1 of 2)

- The Balance Sheet is a list of a bank’s assets and liabilities
- Total assets = total liabilities + capital

The Bank Balance Sheet (2 of 2)

- A bank's balance sheet lists *sources* of bank funds (liabilities) and *uses* to which they are put (assets)
- Banks invest these liabilities (sources) into assets (uses) in order to create value for their capital providers

Balance Sheet of All Commercial Banks (items as a percentage of the total, 2016)

Assets (Uses of Funds)	%		Liabilities (sources of Funds)	%
Reserves and cash items	16		Checkable deposits (支票存款)	10
Securities			Nontransaction deposits (非交易存款)	
U.S. government and agency	14		Small-denomination time deposits	50
State, local govt and others	6		(<$100,000 + savings deposits)	
Loans			Large-denomination time deposits	10
Commercial and industrial	13		Borrowings	19
Real estate	25		Bank Capital	11
Consumer	8			
Other	9			
Other Assets (e.g., buildings)	8			
	100		Total	100

The Bank Balance Sheet: Liabilities (1 of 4)

- **Checkable Deposits**: accounts that allow the owner (depositor) to write checks to third parties
  – non-interest earning checking accounts
  – money-market deposit accounts*
- Others
- Make up about 10% of bank liabilities.

***Money market deposit accounts** are the **deposit account** which puts your **money** in short-term investments with a fixed income. The return is generally higher than on a standard **savings account**. Usually, you can access your **money** with checks or a debit card.

The Bank Balance Sheet: Liabilities (2 of 4)

- **Nontransaction Deposits**: primary source of bank liabilities (50%) and are accounts from which the depositor cannot write checks
  - savings accounts
  - time deposits (CDs or certificates of deposit* 存款證)
- Highest cost of funding, but most stable for bank

*A **certificate of deposit** (CD) is a time **deposit**, a financial product commonly sold by banks, thrift institutions, and credit unions. CDs differ from savings accounts in that the CD has a specific, fixed term (often one, three, or six months, or one to five years) and usually, a fixed interest rate.

The Bank Balance Sheet: Liabilities (3 of 4)

- **Borrowings**: funds from the Federal Reserve System, other banks, and corporations
  - discount loans/advances (from the Fed)
  - fed funds* (from other banks)
  - interbank offshore dollar deposits (from other banks),
  - Others
- More volatile than other liabilities, make up 19% of bank liabilities

What Fed funds rates means: The interest rate at which banks and other depository institutions lend money to each other, usually on an overnight basis. The law requires banks to keep a certain percentage of their customer's money on reserve, where the banks earn no interest on it. Consequently, banks try to stay as close to the reserve limit as possible without going under it, lending money back and forth to maintain the proper level.

The Bank Balance Sheet: Liabilities (4 of 4)

- **Bank Capital**: is the source of funds supplied by the bank owners
- About 11% of assets.

The Bank Balance Sheet: Assets (1 of 6)

- **Reserves**: funds held in account with the Fed (vault cash as well).
- **Required reserves** represent what is required by law under current **required reserve ratios**.
- Any reserves beyond this area called **excess reserves**.

The Bank Balance Sheet: Assets (2 of 6)

- **Cash items in Process of Collection**: checks deposited at a bank, funds from other bank have not yet been transferred.
- **Deposits at Other Banks**: usually deposits from small banks at larger banks (referred to as **correspondent banking***)

***The term **correspondent bank** refers to a financial institution that provides services to another one—usually in another country. It acts as an intermediary or agent, facilitating wire transfers, conducting business transactions, accepting deposits, and gathering documents on behalf of another **bank**.

The Bank Balance Sheet: Assets (3 of 6)

- **Reserves, Cash items in Process of Collection, and Deposits at Other Banks** are collectively referred to as **Cash Items** in our balance sheet
- Account for 16% of assets

The Bank Balance Sheet: Assets (4 of 6)

- **Securities**:
  - U.S. government/agency debt
  - municipal debt
  - other (non-equity) securities
- These make-up about 20% of assets.

The Bank Balance Sheet: Assets (5 of 6)

- **Loans**: a bank's income-earning assets
  - business loans, auto loans, and mortgages
- Not very liquid
- About 53% of assets

The Bank Balance Sheet: Assets (6 of 6)

- **Other Assets**: bank buildings, computer systems, and other equipment.

Basics of Banking (1 of 9)

It is helpful to understand some of the simple accounting associated with the process of banking.

- Think beyond the debits/credit - and try to see that banks engage in **asset transformation***.

***Asset transformation** is the process of creating a new **asset** (loan) from liabilities (deposits) with different characteristics by converting small denomination, immediately available and relatively risk free bank deposits into loans–new relatively risky, large denomination **asset**–that are repaid following a set schedule.

Basics of Banking (2 of 9)

- **Asset transformation** is, for example, when a bank takes your savings deposits and uses the funds to make, say, a mortgage loan.
- Banks tend to "borrow short and lend long" (in terms of maturity).

Basics of Banking (3 of 9)

- T-account Analysis:
  - Deposit of $100 cash into First National Bank

First National Bank			
Assets		Liabilities	
Vault Cash	+$100	Checkable deposits	+$100

What T-account analysis means? https://www.youtube.com/watch?v=z4wUFN8di3k

Basics of Banking (4 of 9)

- Deposit of $100 check (1 of 2)

First National Bank			
Assets		Liabilities	
Cash items in process of collection	+$100	Checkable deposits	+$100

Basics of Banking (5 of 9)

- Deposit of $100 check (2 of 2)

First National Bank			
Assets		Liabilities	
Reserves	+$100	Checkable deposits	+$100

Second National Bank			
Assets		Liabilities	
Reserves	-$100	Checkable deposits	-$100

Basics of Banking (6 of 9)

- Conclusion: When bank receives deposits, reserves increase by equal amount; when bank loses deposits, reserves drop by equal amount

Basics of Banking (7 of 9)

- This simple analysis gets more complicated when we add bank regulations to the picture.
- T-account Analysis:
  - Deposit of $100 cash into First National Bank

First National Bank			
Assets		Liabilities	
Required reserves	+$10	Checkable deposits	+$100
Excess reserves	+$90		

Basics of Banking (8 of 9)

- $10 of the deposit must remain with the bank to meeting federal regulations.
- Bank is free to work with the $90
- The bank loans the $90 to its customers

Basics of Banking (9 of 9)

- T-account Analysis:
  - Deposit of $100 cash into First National Bank
  - Excess reserves loaned out

First National Bank			
Assets		Liabilities	
Required reserves	+$10	Checkable deposits	+$100
Loans	+$90		

Basics of Banking - A Question

- Consider a bank that earns 1% of interest difference. If a person deposits $1,000,000 to the bank, how much money that this bank can earn **at most** from this $1M? Assume a 10% reserve is required by regulation.