### Banks

## Chapter 2







- Commercial banking
  - Taking deposits, making loans (wholesale or retail)
  - Money center banks operate in the wholesale market and often fund themselves by borrowing
- Investment banking
  - Raising debt and equity for companies; advice on mergers and acquisitions, restructurings, trading, etc

### Structure of Banking in the US



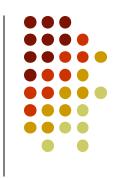
- Large international banks (small number)
- Regional banks (several hundred)
- Small community banks (several thousand)

## History of Bank Regulation in US (page 27)



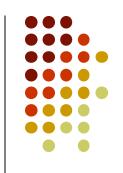
- McFadden Act (1927, 1933)
- Douglas Amendment (1956)
- Bank Holding Companies Act (1970)
- Riegel-Neal Interstate Banking and Branching Efficiency Act (1994)

## Example of Simple Bank Balance Sheet: End 2015 (Table 2.2, page 28)



| Assets                   |     | Liabilities      |       |
|--------------------------|-----|------------------|-------|
| Cash                     | 5   | Deposits         | 90    |
|                          |     | Subord L.T. Debt | 5     |
| Marketable Securities 10 |     | Equity Capital   | 5     |
| Loans                    | 80  | 1 7 1            |       |
| Fixed Assets             | 5   | Total            | 100   |
| Total                    | 100 |                  | _ • • |

## Income Statement: 2015 (Table 2.3, page 29)



| <b>Net Interest</b> | Income | 3.00 |
|---------------------|--------|------|
|                     |        |      |

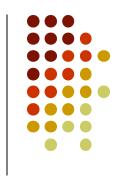
Provision for Loan Losses (0.80)

Non-Interest Income 0.90

Non-Interest Expense (2.50)

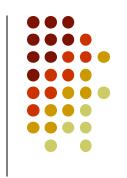
Pre-Tax Operating Income 0.60





 What happens in year 2016 if it is the same as year 2015 except that provision for loan losses is 4.0 instead of 0.8?

# What if Balance Sheet Had Been More Aggressive?

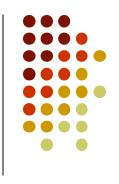


| Assets            |          | Liabilities      |     |
|-------------------|----------|------------------|-----|
| Cash              | 5        | Deposits         | 94  |
|                   |          | Subord L.T. Debt | 5   |
| Marketable Securi | ities 10 | Equity Capital   | 1   |
| Loans             | 80       | 1 7 1            |     |
| Fixed Assets      | 5        | Total            | 100 |
| Total             | 100      |                  |     |

### Regulation

- Regulators set minimum levels for the capital a bank is required to keep
- Equity is an example of Tier 1 capital
- Subordinated long term debt is an example of Tier 2 capital





- Most countries have deposit insurance programs that insure depositors against losses up to a certain level
- In the US the FDIC has provided protection for depositors since 1933
- The amount insured was \$2,500 in 1933
- It has been increased several times
- Following the credit crisis it was increased from \$100,000 to \$250,000 in October 2008.
- Why might deposit insurance encourage a bank to take risks?





- Methods of raising debt or equity
  - Public offering
  - Private placement
  - Best efforts
  - Firm commitment

## **Best Efforts vs Firm Commitment** (page 32)



- 50 million shares are to be issued and target price is \$30 per share
- Best efforts would lead to a fee of 30 cents per share; firm commitment leads to bank buying the shares at \$30 per share

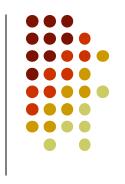
|                  | Best efforts  | Firm Commitment |
|------------------|---------------|-----------------|
| Can sell at \$29 | +\$15 million | -\$50 million   |
| Can sell at \$32 | +\$15 million | +\$100 million  |





- Usually on a best efforts basis
- Bank will set offering price sufficiently low that shares are almost certain to be sold
- Often price rises immediately after IPO
- Banks often offer shares only to fund managers and their best customers





- Individuals and companies bid by indicating the number of shares they want and the price they are prepared to pay
- The price paid is the lowest bid that leads to all the shares being sold

## **Example:** How are 1 million shares allocated in this situation?



| Bidder | Number of<br>Shares | Price   |
|--------|---------------------|---------|
| Α      | 100,000             | \$30.00 |
| В      | 200,000             | \$28.00 |
| С      | 50,000              | \$33.00 |
| D      | 300,000             | \$29.00 |
| Е      | 150,000             | \$30.50 |
| F      | 300,000             | \$31.50 |
| G      | 400,000             | \$25.00 |
| Н      | 200,000             | \$30.25 |

## Google's IPO in 2004 (Business Snapshot 2.1, page 35)



- A Dutch Auction where Google retained the right to change the number of shares that would be issued and the percentage allocated to each bidder
- Investors who bid \$85 or more obtained 74.2% of the shares they had bid for





- Exchange-traded vs OTC
- Why do banks trade?
- Brokerage services
  - Full service
  - Discount
  - On line

### **Potential Conflicts of Interest**



- Bank recommends securities investment bank is trying to sell
- Commercial bank passes confidential information on a client to investment bank
- Stock recommended as a "buy" to please company's management in order to get investment banking business
- Investment bank sell securities for a company so that commercial bank can get rid of a loan

### Accounting (page 39)



- Banking book vs trading book
- Nonperforming loans are loans where interest is not accrued. Typically, payments from the borrower are more than 90 days overdue.
- When it becomes clear that payments will not be made, there is a loan loss
- A bank creates a reserve for loan losses





- Very popular way of handling mortgages during the 2000 to 2007 period
- Banks originated loans and then packaged them into products that were sold to investors
- This frees up funds to make more loans