## CHAPTER 1 Investments - Background and Issues

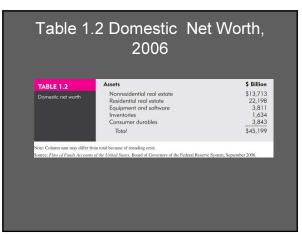
#### 1.1 REAL ASSETS VERSUS FINANCIAL ASSETS

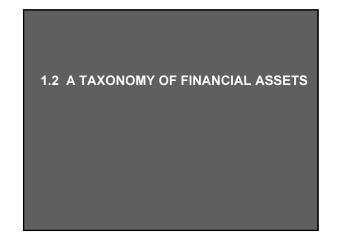
# **Financial Versus Real Assets**

- Essential nature of investment
  - Reduced current consumption
  - Planned later consumption
- Real Assets
  - Assets used to produce goods and services
- Financial Assets
  - Claims on real assets

# Table 1.1. Balance Sheet – U.S. Households, 2006

| Assets                      | \$ Billion | % Total | Liabilities<br>and Net Worth | \$ Billion | % Total |
|-----------------------------|------------|---------|------------------------------|------------|---------|
| Real assets                 |            |         |                              |            |         |
| Real estate                 | \$22,177   | 33.6%   | Mortgages                    | \$ 9,161   | 13.9%   |
| Consumer durables           | 3,822      | 5.8     | Consumer credit              | 2,150      | 3.3     |
| Other                       | 224        | 0.3     | Bank & other loans           | 237        | 0.4     |
| Total real assets           | \$26,223   | 39.7%   | Security Credit              | 249        | 0.4     |
|                             |            |         | Other                        | 401        | 0.6     |
|                             |            |         | Total liabilities            | \$12,199   | 18.5%   |
| Financial assets            |            |         |                              |            |         |
| Deposits                    | \$ 6,251   | 9.5%    |                              |            |         |
| Life insurance reserves     | 1,097      | 1.7     |                              |            |         |
| Pension reserves            | 11,109     | 16.8    |                              |            |         |
| Corporate equity            | 5,685      | 8.6     |                              |            |         |
| Equity in noncorp. business | 6,786      | 10.3    |                              |            |         |
| Mutual fund shares          | 4,537      | 6.9     |                              |            |         |
| Debt securities             | 3,216      | 4.9     |                              |            |         |
| Other                       | 1,126      | 1.7     |                              |            |         |
| Total financial assets      | 39,807     | 60.3    | Net worth                    | 53,831     | 81.5    |
| Total                       | \$66,030   | 100.0%  |                              | \$66,030   | 100.0%  |





## Major Classes of Financial Assets or Securities

Debt

- Money market instruments
  Bank certificates of deposit
- Capital market instruments
  Bonds
- Common stock
- Preferred stock
- Derivative securities

#### 1.3 FINANCIAL MARKETS AND THE ECONOMY

## **Financial Markets**

- Informational Role of Financials Markets – The Google effect
- Consumption Timing
- Allocation of Risk
- Separation of Ownership and Management
  - Agency Issues

## Corporate Governance and Ethics

- Accounting Scandals
  - Examples Enron and WorldCom
- Misleading research reports
- Auditors watchdogs or consultants – Example – Arthur Andersen and Enron
- Sarbanes-Oxley Act
  - Tighten the rules of corporate governance

#### **1.4 THE INVESTMENT PROCESS**

#### The Investor's Portfolio

#### Asset allocation

- Choice among broad asset classes
- Security selection
  - Choice of which securities to hold within asset class
- Security selection

#### 1.5 MARKETS ARE COMPETITIVE

#### **Risk-Return Trade-Off**

- How should one measure risk
- Assets with higher expected returns have greater risk
- What role does diversification play

## Efficient Markets Theory

- Should be neither underpriced nor overpriced securities
- Security price should reflect all information available to investors

## Active Versus Passive Management

Active Management

- Finding undervalued securities
- Timing the market

Passive Management

- No attempt to find undervalued securities
- No attempt to time
- Holding an efficient portfolio

## The Players

- Business Firms net borrowers
- Households net savers
- Governments can be both borrowers and savers
- Financial Intermediaries
  - Banks
  - Investment companies
  - Insurance companies
  - Credit unions
- Investment Bankers

# 1.6 THE PLAYERS

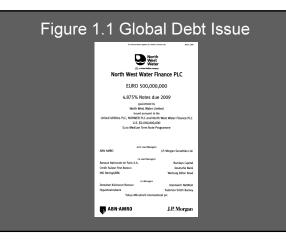
| Table 1.3 Balance Sheet of<br>Commercial Banks  |   |                              |  |                         |                   |  |  |  |
|---|---|------------------------------|--|-------------------------|-------------------|--|--|--|
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| TABLE 1.3   |   |                              |  |                         |                   |  |  |  |
| Balance sheet of commercial bank  |   |                              |  |                         |                   |  |  |  |
| Assets  | \$ Billion                                | % Total                      | Liabilities<br>and Net Worth   | \$ Billion              | % Total           |  |  |  |
| Real assets<br>Equipment and premises<br>Other real estate                                      | \$ 93.9<br>4.9                            | 1.0%                         | Liabilities<br>Deposits<br>Borrowed funds                                | \$6,383.0<br>798.0      | 66.5%<br>8.3      |  |  |  |
| Total real assets   | \$ 98.8                                   | 1.0%                         | Subordinated debt<br>Federal funds and<br>repurchase agreements<br>Other | 132.7<br>750.0<br>566.8 | 1.4<br>7.8<br>5.9 |  |  |  |
| Financial assets<br>Cash<br>Investment securities<br>Loans and Leases<br>Other financial assets | \$ 397.6<br>1,648.7<br>5,589.3<br>1.082.4 | 4.1%<br>17.2<br>58.2<br>11.3 | Total liabilities  | \$8,630.5               | 89.9%             |  |  |  |
| Total financial assets<br>Other assets<br>Intangible assets<br>Other<br>Total other assets      | \$8,718.0<br>\$ 345.6<br>440.0<br>785.5   | 90.8<br>3.6<br>4.6<br>8.2    | Net worth  | 971.7                   | _10.1             |  |  |  |
| Total   | \$9,602.3                                 | 100.0%                       |  | \$9.602.3               | 100.0%            |  |  |  |

| Nonfinancial U.S. Business   |   |                                      |  |  |                                   |  |  |  |  |  |
|--|---|--------------------------------------|--|--|-----------------------------------|--|--|--|--|--|
| TABLE 1.4  |   |                                      |  |  |                                   |  |  |  |  |  |
| Balance sheet of nonfinancial U.S. b   | \$ Billion                                    | % Total                              | Liabilities<br>and Net Worth   | \$ Billion                               | % Tota                            |  |  |  |  |  |
| Real assets<br>Equipment and software<br>Real estate<br>Inventories<br>Total real assets             | \$ 3,642<br>6,769<br><u>1,593</u><br>\$12,004 | 15.8%<br>29.4<br><u>6.9</u><br>52.2% | Liabilities<br>Bonds and mortgages<br>Bank loans<br>Other loans<br>Trade debt<br>Other | \$ 4,034<br>651<br>772<br>1,658<br>3,256 | 17.5<br>2.8<br>3.4<br>7.2<br>14.1 |  |  |  |  |  |
| Financial assets<br>Deposits and cash<br>Marketable securities<br>Trade and consumer credit<br>Other | \$ 973<br>438<br>2,077<br>7,525               | 4.2%<br>1.9<br>9.0<br>32.7           | Total liabilities  | \$10,372                                 | 45.1                              |  |  |  |  |  |
| Total financial assets<br>Total  | 11,014  | 47.8<br>100.0%                       | Net worth  | 12,646<br>\$23,018                       | <u>54.9</u><br>100.09             |  |  |  |  |  |



### Globalization

- Managing foreign exchange
- Diversification to improve performance
- Instruments and vehicles continue to develop (WEBs)
- Information and analysis improves



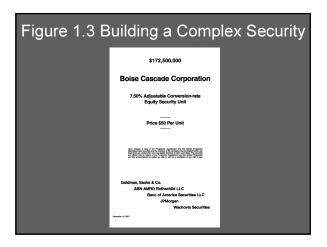
## Securitization

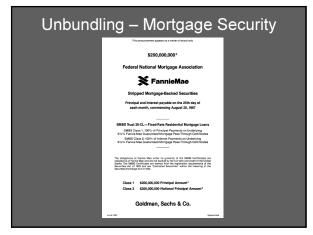
- Offers opportunities for investors and originators
- Changes in financial institutions and regulation
- Improvement in information capabilities
- Credit enhancement and its role



# **Financial Engineering**

- Repackaging Services of Financial Intermediaries
- Bundling and unbundling of cash flows
- Slicing and dicing of cash flows
- Examples: strips, CMOs, dual purpose funds, principal/interest splits





# Computer Networks

- Online trading
- Information made cheaply and widely available
- Direct trading among investors