

1. Introduction to Investments

- Investments - Background and Issues
 - Players
 - Policies and Process
 - Key Innovations and Trends

- Note: First Homework:
 - Get OTIS trading account with a group.
 - Buy PRS
 - Register PRS unit in Blackboard (see syllabus for link)
 - Enter your student ID into PRS unit.

Investment and Players

- Essential nature of Investment
 - Exchange current for future consumption
 - Real Assets – Assets used to produce goods and services
 - Financial Assets – Claims on real assets
- Firms – net borrowers
- Households – net savers
- Government – State & local (net savers) Federal (net borrower)
- Financial Intermediaries - connect borrowers and lenders
 - Depository Institutions - Banks, Credit Unions, Insurance Companies
 - Investment Co. – pool and manage investor money (e.g., mutual funds)
 - Investment Bank – advise firms issuing securities Goldman Sachs, Merrill Lynch, Montgomery, CSFB

Balance Sheet for Households

TABLE 1.1

Balance sheet U.S. households, 2006

Assets	\$ Billion	% Total	Liabilities 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
<i>Total real assets</i>	<u>\$26,223</u>	<u>39.7%</u>	Security Credit	249	0.4
			Other	401	0.6
			<i>Total liabilities</i>	<u>\$12,199</u>	<u>18.5%</u>
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			
<i>Total financial assets</i>	<u>39,807</u>	<u>60.3</u>	<i>Net worth</i>	<u>53,831</u>	<u>81.5</u>
<i>Total</i>	<u>\$66,030</u>	<u>100.0%</u>		<u>\$66,030</u>	<u>100.0%</u>

Note: Column sums may differ from totals because of rounding error.

Source: *Flow of Funds Accounts of the United States*, Board of Governors of the Federal Reserve System, June 2006.

Balance Sheet for Commercial Banks

TABLE 1.3

Balance sheet of commercial banks

Assets	\$ Billion	% Total	Liabilities and Net Worth	\$ Billion	% Total
Real assets			Liabilities		
Equipment and premises	\$ 93.9	1.0%	Deposits	\$6,383.0	66.5%
Other real estate	4.9	0.1	Borrowed funds	798.0	8.3
<i>Total real assets</i>	<u>\$ 98.8</u>	<u>1.0%</u>	Subordinated debt	132.7	1.4
			Federal funds and repurchase agreements	750.0	7.8
			Other	<u>566.8</u>	<u>5.9</u>
			<i>Total liabilities</i>	<u>\$8,630.5</u>	<u>89.9%</u>
Financial assets					
Cash	\$ 397.6	4.1%			
Investment securities	1,648.7	17.2			
Loans and Leases	5,589.3	58.2			
Other financial assets	<u>1,082.4</u>	<u>11.3</u>			
<i>Total financial assets</i>	<u>\$8,718.0</u>	<u>90.8</u>			
Other assets					
Intangible assets	\$ 345.6	3.6			
Other	<u>440.0</u>	<u>4.6</u>			
<i>Total other assets</i>	<u>785.5</u>	<u>8.2</u>	<i>Net worth</i>	<u>971.7</u>	<u>10.1</u>
<i>Total</i>	<u>\$9,602.3</u>	<u>100.0%</u>		<u>\$9,602.3</u>	<u>100.0%</u>

Note: Column sums may differ from totals because of rounding error.

Source: Federal Deposit Insurance Corporation, www.fdic.gov, September 2005.

Balance Sheet for Non-Finance Firms

TABLE 1.4

Balance sheet of nonfinancial U.S. business

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

Note: Column sums may differ from totals because of rounding error.

Source: *Flow of Funds Accounts of the United States*, Board of Governors of the Federal Reserve System, June 2006.

Investment Policy and Process (More later)

- Objectives
 - Retire at 75% of salary; College for 2 kids.
- Constraints
 - Income requirements
- Investment Policy-Asset Allocation
 - Allocate among broad asset classes. Risk-return trade-off.
 - Active / Passive portfolio management – tactical adjustments
- Security Selection
 - Buy which stocks/bonds/mutual funds/ETFs?
 - Top-down analysis: Macro / Industry / Valuation / Financials
- Monitor performance / Reevaluate / Rebalance Annually
 - Characteristics of portfolio. Are objectives on track? Rebalancing?

Key Innovations and Trends

- Regulation of Financial Institutions
 - Repeal of Glass-Steagall and consolidation.
- Information Technology
 - More complete and timely information
- Securitization
 - Pooling assets into standardized securities. Then trade
 - E.g, Mortgages, students loans, credit receivables, auto loans.
- Financial Engineering
 - Repackaging cash flows (combining or separating).
 - Hedge funds w/ min return; STRIPS, CMOs (IO/PO, Sequential, PACs).
 - Credit Enhancement
- Global Financial Integration Markets
 - Managing FX; Diversification; New Instruments