Financial Investment

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  - Seminars
    - Excercises in a seminars evaluated by lecturer
      - Questions as a preparation for final test
      - (2, 1 or 0 points) – maximum points per term 18 points
    - Seminar paper presentation – 12 points
    - 2 in-term tests (20 points per each)
    - 30/10/2013 and 4/12/2013
- Final grade
  - Final Test: 30 points
  - A 92 – 100 %, B 84 – 91 %, C 76 – 83 %, D 68 – 75 %, E 60 – 67 %, F less than 60 %

Financial Investment

- Bodie Kane Marcus

Lecture 1

- The Investment Environment
- Asset Classes and Financial Investments

Economic vs. Financial System

- Economic System
  - Households, firms, government?
- Financial System
  - Surplus units, deficit units

Real Assets Versus Financial Assets

- The material wealth of an economy is determined by production of the economy
  - How many goods and services are its members possible create
- This can be produced by using real asset
- In contrast to real assets are financial assets
  - Sheet of paper of computer entry
  - Means by which individuals hold claims on real assets
    - Auto plant vs. stock of Toyota

Financial Assets

- Essential nature of investment
  - Reduced current consumption
  - Planned later consumption
- Financial Assets
  - Claims on real assets
  - Allocation of net income along investors

System of markets

- Issuance
  - Primary vs. Secondary market
- Products/ instruments
  - Stock, bond, foreign exchange, derivative market
- Maturity
  - Money vs. Capital market

A Taxonomy of Financial Assets

- Three broad types of financial assets
  - Fixed income, Equity and derivative securities
- Fixed income or debt
  - Fixed stream of income vs. Determined stream of income (some formula)
    - Corporate bonds or floating-rate notes
  - Money market instruments
    - Bank certificates of deposit, T-Bills
  - Capital market instruments
    - Corporate bonds

A Taxonomy of Financial Assets cont.

- Common stock or equity
  - Ownership in corporation
  - Without promise of regular payment
- Derivative securities
  - Options, futures contracts
  - Underlying
  - Hedging
  - Speculation

Financial Markets and the Economy

- Information Role
  - Investor decides which company live of die
  - Bid up or bid down prices
- Consumption Timing
  - Earning more or less than wish to spend
  - Store wealth in financial assets
  - Shift purchasing power

Financial Markets and the Economy cont.

- Allocation of Risk
  - Transformation risk according to investor profile
  - Bond vs. stock
  - Diversification or insurance or hedging
- Separation of Ownership and Management
  - Companies owned and managed by same individuals
  - Agency Issues
    - Does management attempt to maximalise firm value?
    - Conflict of interest
      - Tie managers income to profit of a firm
        - » Stock options
        - » Treat of takeover – proxy contest or other firm

Financial Markets and the Economy cont.

- Corporate Governance and Corporate Ethics
  - Financial market play important role in effective allocation of resources
    - Transparency of information
  - Accounting Scandals x Rating Agency failures
    - WorldCom
    - Examples – Enron, Rite Aid, HealthSouth
  - Auditors—watchdogs of the firms
  - Analyst Scandals
    - Arthur Andersen
  - Sarbanes-Oxley Act
    - Tighten the rules of corporate governance
      - 2002
      - Independent directors that are not managers
      - Prohibit auditors providing another services

The Investment Process

- Saving
  - Not spending all on consumption
- Investing
  - Choosing what assets to hold
    - Safe, risky, combination
- Investors are making two decisions in creation of their portfolio
- Asset allocation
  - Choice among broad asset classes
- Security selection
  - Choice of which securities to hold within asset class
- Security analysis
  - Evaluation of assets
- Top down portfolio
  - Asset allocation
  - Security selection
- Bottom-up strategy
  - Securities that are attractively priced

The Investment Process

- Prediction of future return
  - Risk associate with investment
- Risk-Return Trade-Off
  - If all else is equal, investors will prefer investments with the highest expected return
  - A vs. B
    - expected risk 5 % vs. 8
    - Expected rate of return 3 % vs. 2,5
- Efficient Markets
  - Role of information
- Active Management
    - Finding mispriced securities
    - Timing the market
- Passive Management
    - No attempt to find undervalued securities
    - No attempt to time the market
    - Holding a highly diversified portfolio

Chinese Symbol For Risk

- Risk
  - Systematic
  - Non-systematic

Breakdown of Risk

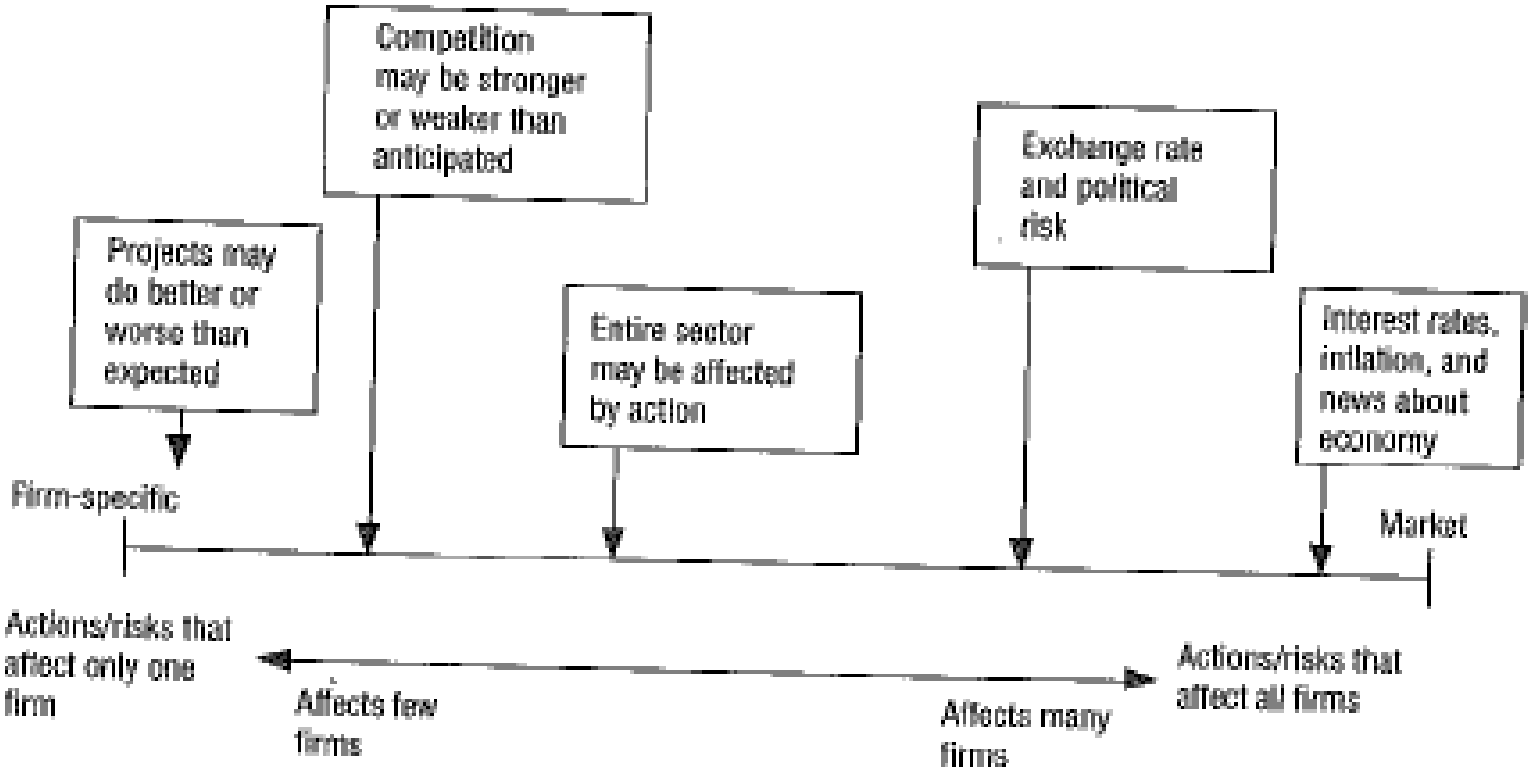


FIGURE 2.1 Breakdown of Risk

The Players

- Business Firms– net borrowers
  - Raise capital to pay for investments in plant and from income provides return to investors
- Households – net savers
  - Purchase securities from firms that need capital
- Governments – can be both borrowers and savers
  - After WWII mostly borrowers
- Role of financial institutions and intermediaries

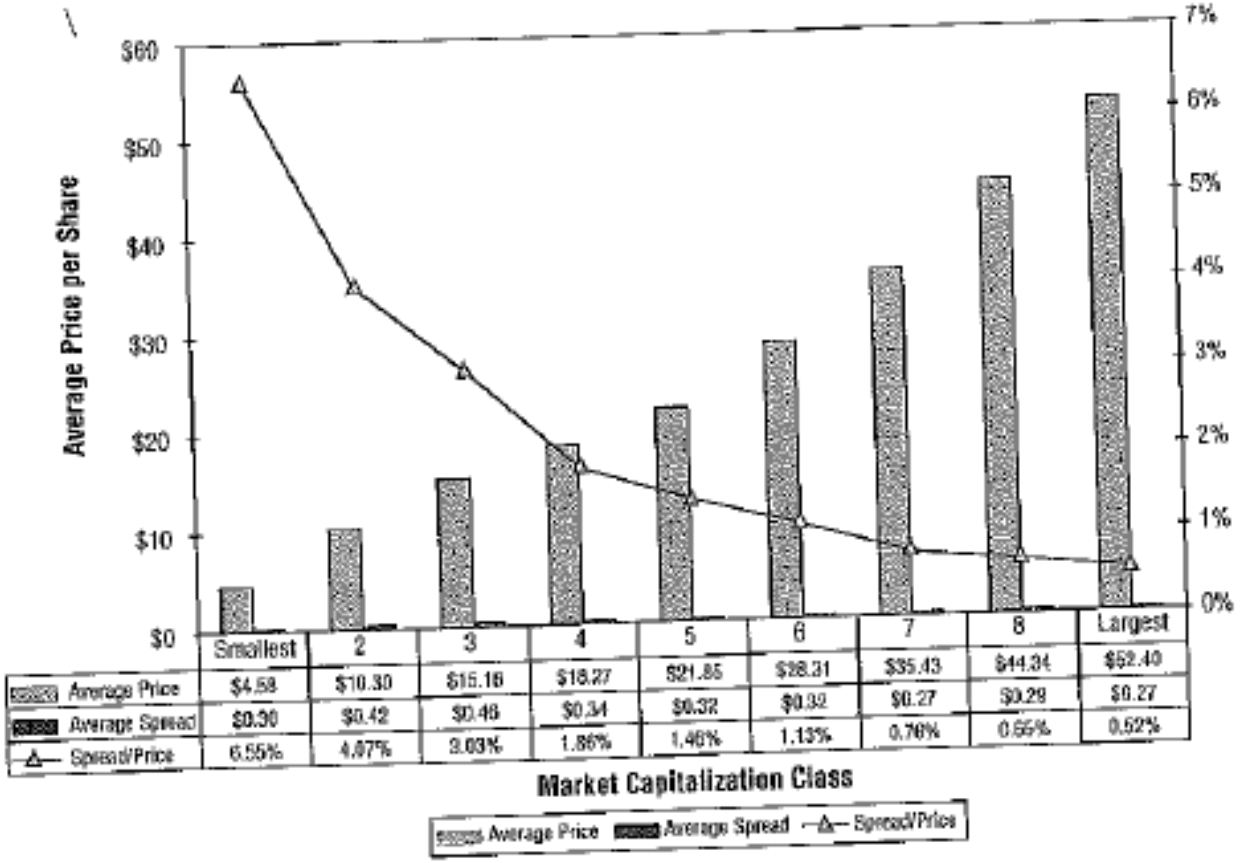
The Players cont.

- Financial Intermediaries
  - Investment Companies
  - (Investment)Banks
  - Insurance companies
  - Credit unions

Financial Intermediaries

- For the households is direct investment difficult
- For small investor is lending money related with transactional costs
- Entrance of financial intermediaries
  - Bring them together
  - Different from another business
    - All their liabilities and claims are at most financial
    - Table 1.3 compare with table 1.4
- Primary function
  - Channelling funds from private to business sector
    - Pooling the resources from many small investors to be able to lend considerable sum of money
    - Lending to many borrowers
      - Diversification and thus can adopt risky project
    - Built expertise through volume of business they do
      - Economy of scale

Bid-Ask Spread



	Smallest	2	3	4	5	6	7	8	Largest
Average Price	$4.58	$10.30	$15.16	$18.27	$21.85	$28.31	$35.43	$44.34	$52.40
Average Spread	$0.30	$0.42	$0.46	$0.34	$0.32	$0.32	$0.27	$0.29	$0.27
Spread/Price	6.55%	4.07%	3.03%	1.86%	1.46%	1.13%	0.76%	0.65%	0.52%

FIGURE 14.1 Prices and Spreads by Market Cap
Source: Loeb (1983).

The Players Continued

- Investment companies
  - Pool and manage the money of many investors
    - Most household portfolios is not large enough to be spread among a wide variety of securities
      - Brokerage fees
      - Researcher costs
    - Mutual funds
    - Portfolios for individual investors
- Investment Bankers
  - Perform specialized services for businesses
  - Markets in the primary market
  - Expertise to security issuers
  - Assisting in issuing securities

Table 1.3 Balance Sheet of Commercial Banks, 2007

Assets	$ Billion	% Total	Liabilities and Net Worth	$ Billion	% Total
Real assets			**Liabilities**		
Equipment and premises	$ 100.7	1.0%	Deposits	$ 6,865.3	65.9%
Other real estate	6.8	0.1	Borrowed funds	1,242.5	11.9
Total real assets	$ 107.5	1.0%	Subordinated debt	161.3	1.5
			Federal funds and repurchase agreements	771.4	7.4
			Other	320.8	3.1
			Total liabilities	$ 9,361.3	89.9%
Financial assets					
Cash	$ 457.5	4.4%			
Investment securities	2,180.0	20.9			
Loans and leases	6,089.3	58.5			
Other financial assets	822.3	7.9			
Total financial assets	$ 9,549.1	91.7%			
Other assets					
Intangible assets	$ 379.2	3.6%			
Other	375.1	3.6			
Total other assets	$ 754.3	7.2%	*Net worth*	$ 1,049.6	10.1%
Total	$ 10,410.9	100.0%		$10,410.9	100.0%

TABLE 1.3

Balance sheet of commercial banks, 2007

Note: Column sums may differ from total because of rounding error.
Source: Federal Deposit Insurance Corporation, **www.fdic.gov,** September 2007.

Table 1.4 Balance Sheet of Nonfinancial U.S. Business, 2007

Assets	$ Billion	% Total	Liabilities and Net Worth	$ Billion	% Total
Real assets			**Liabilities**		
Equipment and software	$ 3,764	15.0%	Bonds and mortgages	$ 4,397	17.5%
Real estate	7,861	31.2	Bank loans	707	2.8
Inventories	1,671	6.6	Other loans	745	3.0
Total real assets	$13,295	52.8%	Trade debt	1,651	6.6
			Other	3,319	13.2
Financial assets			*Total liabilities*	$10,818	43.0%
Deposits and cash	$ 608	2.4%			
Marketable securities	953	3.8			
Trade and consumer credit	2,200	8.7			
Other	8,108	32.2			
Total financial assets	$11,868	47.2%			
Total	$25,164	100.0%	*Net worth*	$14,346	57.0%
				$25,164	100.0%

TABLE 1.4

Balance sheet of nonfinancial U.S. business, 2007

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

Source: *Flow of Funds Accounts of the United States,* Board of Governors of the Federal Reserve System, June 2007.

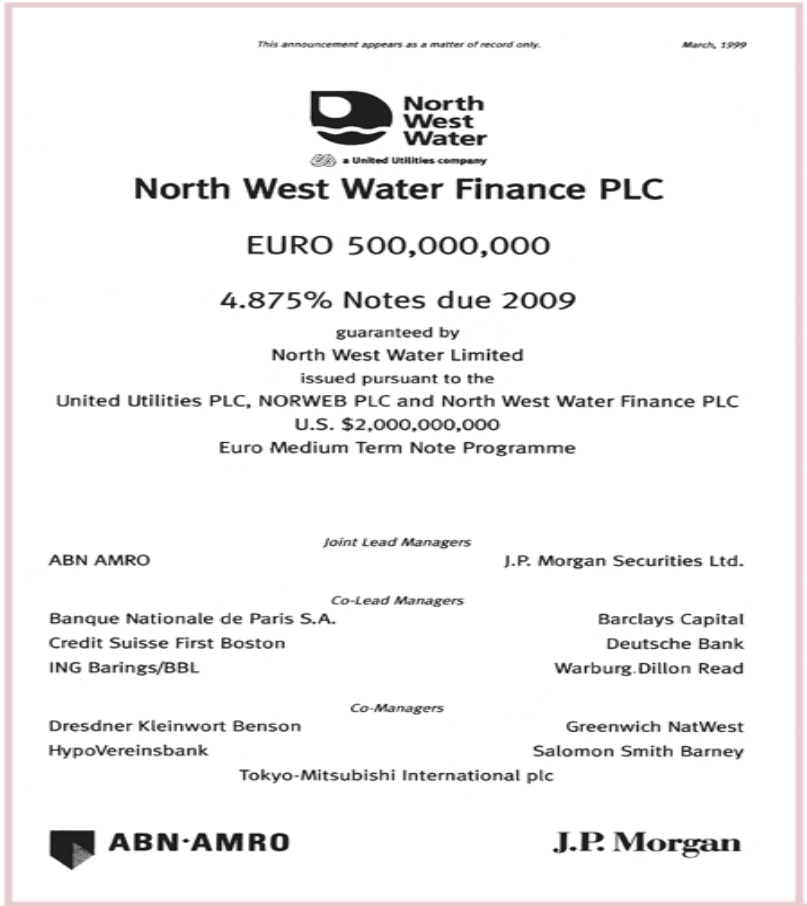
New Trends

- Globalization
- Securitization
- Financial engineering
- Information and computer networks

Recent Trends—Globalization

- Investor is not limited only to domestic assets
- Efficient communication technology and decreasing of regulatory borders
- Possible way how to participate in foreign investments opportunities
  - Domestically traded securities that represent claim to share of foreign stocks
  - Purchase of foreign securities that are denominated in domestic currency
  - Buy mutual funds that invest internationally
  - Buy derivative securities with payoffs that depend on prices in foreign security market
- A giant step toward globalization 1999
  - 11 European countries adopted euro

Figure 1.1 Globalization: A Debt Issue Denominated in Euros



This announcement appears as a matter of record only. *March, 1999*

North West Water

a United Utilities company

North West Water Finance PLC

EURO 500,000,000

4.875% Notes due 2009

guaranteed by
North West Water Limited
issued pursuant to the
United Utilities PLC, NORWEB PLC and North West Water Finance PLC
U.S. $2,000,000,000
Euro Medium Term Note Programme

Joint Lead Managers

ABN AMRO — J.P. Morgan Securities Ltd.

Co-Lead Managers

Banque Nationale de Paris S.A. — Barclays Capital
Credit Suisse First Boston — Deutsche Bank
ING Barings/BBL — Warburg Dillon Read

Co-Managers

Dresdner Kleinwort Benson — Greenwich NatWest
HypoVereinsbank — Salomon Smith Barney
Tokyo-Mitsubishi International plc

ABN·AMRO — J.P. Morgan

FIGURE 1.1 Globalization: A debt issue denominated in euros

Source: North West Water Finance PLC, April 1999.

Recent Trends—Securitization

- Mortgage pass-through securities
  - 1970 –Government National Mortgage Association or GNMA or Ginnie Mae
  - Aggregation of individual home mortgages into homogeneous pool
  - This pool works as backed for pass through security
  - Investors get share in principal ale payments related with backed securities
  - Securitization of mortgages means that mortgages can be traded as securities
- Other pass-through arrangements
  - Car, student, home equity, credit card loans
- Offers opportunities for investors and originators

Figure 1.2 Asset-backed Securities Outstanding

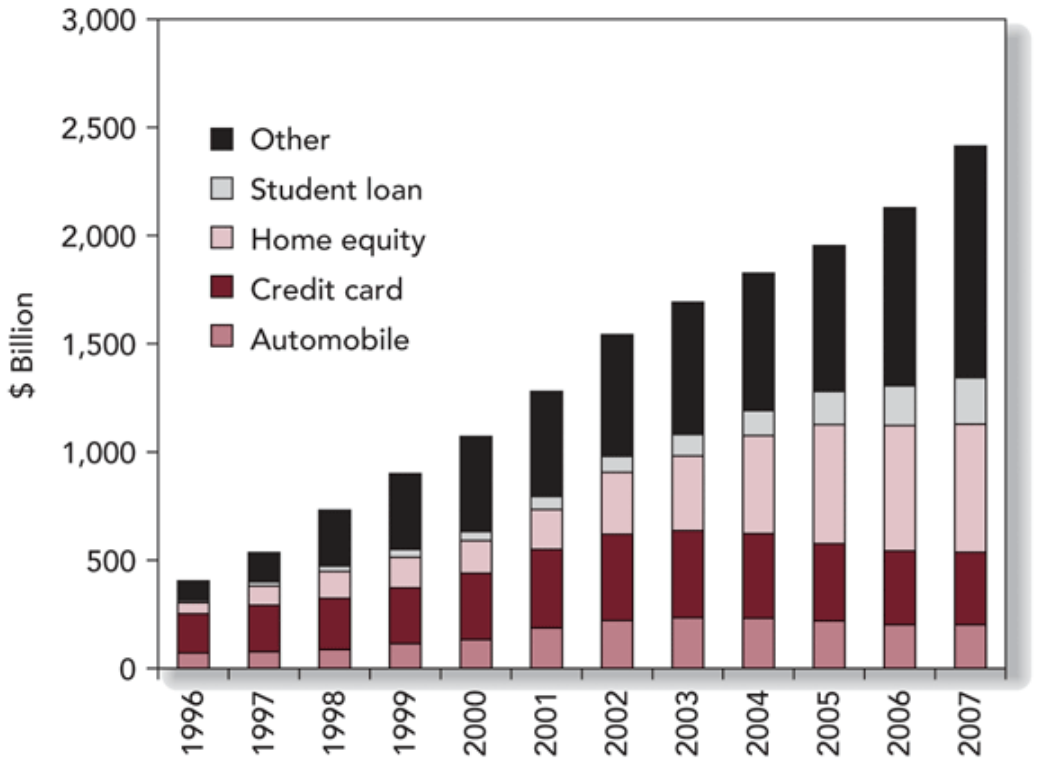


FIGURE 1.2 Asset-backed securities outstanding

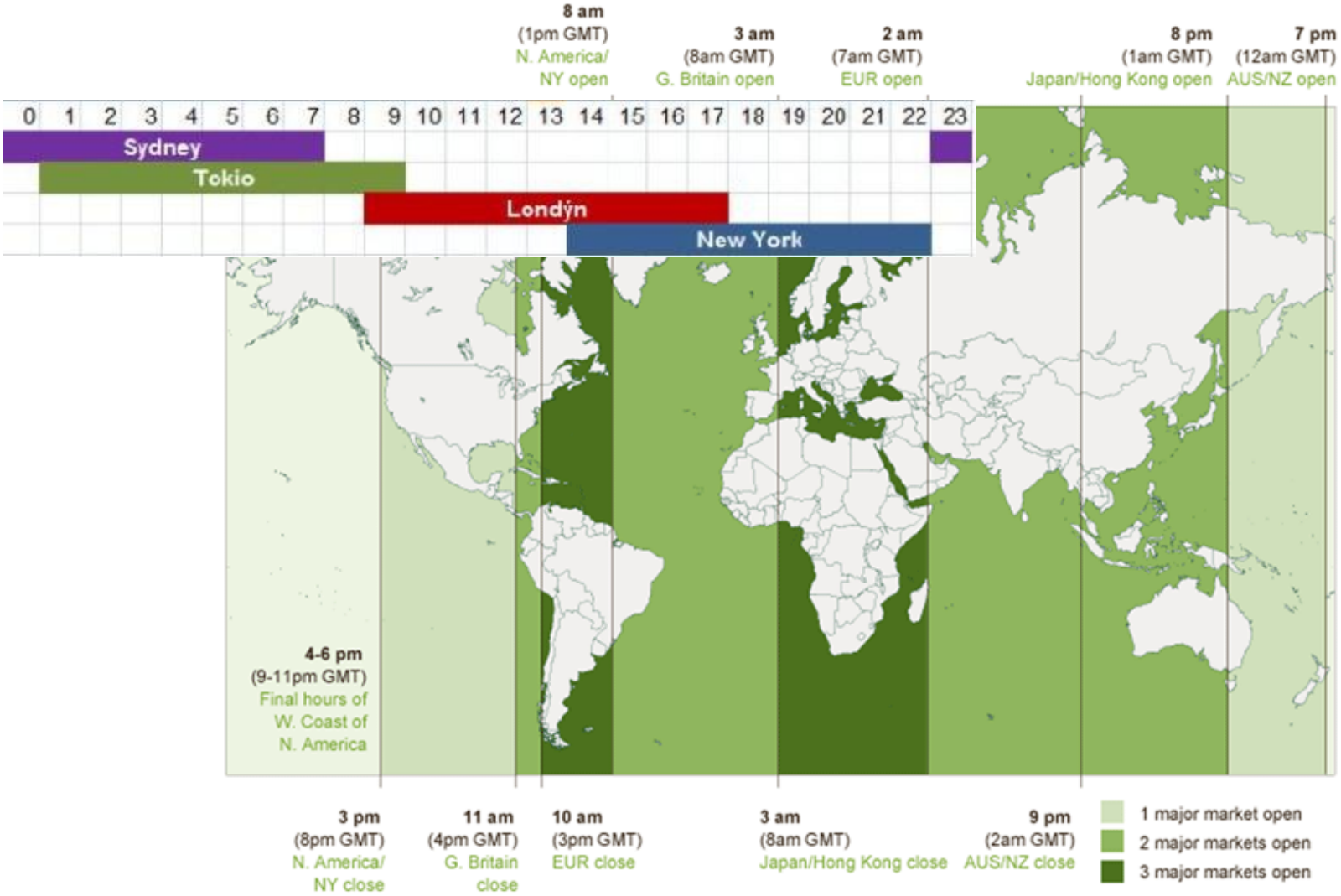
Source: The Securities Industry and Financial Markets Association, **www.sifma.org**

Recent Trends—Financial Engineering

- Use of mathematical models and computer-based trading technology to synthesize new financial products
  - Principal-protected equity-linked note
    - Security that guarantee a minimum fixed return plus an additional amount that depends on the performance of some index
- Bundling and unbundling of cash flows
- Combination more than one security into a composite security or breaking up and allocation the cash flows from one security to create several new securities
- Securities tailored according to investor risk

Recent Trends—Computer Networks

- Online trading
  - Direct contact between customers and brokerage firm
  - Cheaper trading
  - Lower commissions
- Online information dissemination
- Information is made cheaply and widely available to the public
- Automated trade crossing
  - Direct trading among investors
    - Trading without benefit for intermediaries such security dealers



Forex Liquidity by Trading Hour

Major Classes of Financial Assets or Securities

- Money market instruments
- Bond market instruments
- Equity Securities
- Indexes
- Derivative market products

The Money Market

- A subsector of the fixed income market
  - Short-term debt securities
  - Highly marketable
  - Traded in large denominations
  - Out of reach of individual investors

The Money Market cont.

- Treasury bills
  - Most market able
  - Simple for of borrowing
    - Government want to borrow from public
    - Investors buy with discount from face value
    - Maturities 28, 91 or 182 days
    - Individual can buy directly in auction or from government securities dealer
    - Highly liquid
  - Bid and asked price
  - Bank discount method

The Money Market cont.

- Certificates of Deposits
  - CD time deposit with bank
  - Can not be withdraw on demand
  - Issued in denominations greater than 100.000 USD
  - Are negotiable
- Commercial Paper
  - Issued by well-know companies rather than using bank loans
  - Very often backed by a bank line of credit
    - Access to cash that can be used to pay off the paper at maturity
  - Issued in multiple of 100.000
  - For small investor open only indirectly

The Money Market cont.

- Bankers Acceptances
  - Order to a bank by bank's client to pay a sum of money at a future day, typically within 6 months
  - Can be traded in secondary market
  - It is selling with discount from face value

The Money Market Continued

- Eurodollars
  - Dollar-denominated deposits at foreign bank

The Money Market Continued

- Brokers' Calls
  - Individual who buy securities on margin borrow part of the funds to pay for the stocks from their broker
  - Broker may borrow the funds from a bank, agreeing to repay immediately on call if the bank request it
  - Price about 1 % higher than the rate on short-term T-bills

The Money Market Continued

- Repurchase Agreements (RPs) and Reverse RPs
  - It is used by dealers with government securities
  - Form of short term borrowing
  - Most deposits are in large sum, time deposit less then 6 months
    - Overnight
  - Dealer sells government securities on an overnight basis with the promise to buy back these securities next day
  - Dealer get 1-day loan from the investor
  - Securities work as collateral
  - Safe in term of credit risk

LIBOR Market

- London Interbank Offered Rate
- LIBOR (lend)
  - Large banks in London are willing to lend money among themselves
  - (Short-term interest rate quoted in European money market
  - Reference rate for a wide range of transactions
- EURIBOR, HIBOR, MIBOR (2x), SIBOR, etc.
- LIBID (borrow)


US0003M Index
95) Save As
96) Actions
97) Edit
98) Table
Line Chart
09/26/2008 - 09/25/2013
11) Compare
Mov. Avgs
1D 3D 1M 6M YTD 1Y 5Y Max Daily
Security/Study
Event
Ask Price
US0003M Index 0.2502
Last Price
FEDL01 Index 0.09
EUR003M Index 0.221
5.00
4.00
3.00
2.00
1.00
0.2502
0.09
Dec Mar Jun Sep Dec Mar Jun Sep Dec Mar Jun Sep Dec Mar Jun Sep Dec Mar Jun Sep
2008 2009 2010 2011 2012 2013
Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2013 Bloomberg Finance L.P.
SN 541209 CEST GMT+2:00 H266-1666-1 25-Sep-2013 12:30:42

Figure 2.1 Rates on Money Market Securities

Money Rates

January 4, 2007

International rates

	Latest	Week ago	52-WEEK High	52-WEEK Low
Prime rates				
U.S.	**8.25**	8.25	8.25	7.25
Canada	**6.00**	6.00	6.00	5.00
Euro zone	**3.50**	3.50	3.50	2.25
Japan	**1.625**	1.625	1.625	1.375
Britain	**5.00**	5.00	5.00	4.50
Overnight repurchase				
U.S.	**5.22**	5.19	5.28	4.13
U.K. (BBA)	**5.080**	5.047	5.150	4.100
Euro zone	**3.60**	3.77	3.77	2.26

U.S. government rates

Federal funds				
Effective rate	**5.24**	5.25	5.37	4.21
Treasury bill auction				
4 weeks	**4.760**	4.660	5.170	3.950
13 weeks	**4.930**	4.875	4.990	4.070
26 weeks	**4.900**	4.900	5.110	4.250

Secondary market

Freddie Mac				
30-year mortgage yields				
30 days	**5.92**	6.06	6.71	5.81
60 days	**5.93**	6.07	6.75	5.82
One-year ARM	**3.375**	3.375	3.375	3.375
Fannie Mae				
30-year mortgage yields				
30 days	**6.066**	6.107	6.792	5.913
60 days	**6.089**	6.125	6.821	5.924
Bankers acceptances				
30 days	**5.29**	5.31	5.38	4.35
60 days	**5.30**	5.31	5.43	4.44
90 days	**5.31**	5.31	5.49	4.49

Other short-term rates

	Latest	Week ago	52-WEEK High	52-WEEK Low
Commercial paper				
30 to 60 days	**5.23**	...	...	...
61 to 90 days	**5.22**	...	...	...
91 to 120 days	**5.20**	...	...	...
Dealer commercial paper				
30 days	**5.26**	5.27	5.36	4.32
60 days	**5.26**	5.28	5.41	4.42
90 days	**5.25**	5.30	5.46	4.46
Euro commercial paper				
30 day	**3.58**	3.58	3.62	2.00
Two month	**3.62**	3.62	3.63	2.39
Three month	**3.69**	3.68	3.69	2.45
London interbank offered rate, or Libor				
One month	**5.32000**	5.3256	5.4200	4.4188
Three month	**5.36000**	5.3600	5.5200	4.5500
Euro Libor				
One month	**3.628**	3.634	3.713	2.386
Three month	**3.733**	3.724	3.733	2.488
Euro interbank offered rate (Euribor)				
One month	**3.625**	3.634	3.672	2.384
Three month	**3.734**	3.723	3.734	2.490
Asian dollars				
One month	**5.335**	5.337	5.425	4.418
Three month	**5.363**	5.370	5.525	3.570

	LATEST Offer	LATEST Bid	Week ago	52-WEEK High	52-WEEK Low
Eurodollars (mid rates)					
One month	**5.28**	5.30	5.32	5.39	4.36
Two month	**5.29**	5.31	5.32	5.44	4.45
Three month	**5.30**	5.32	5.34	5.51	4.51

FIGURE 2.1 Rates on money market securities

Source: *The Wall Street Journal*, January 5, 2007. Reprinted by permission of Dow Jones & Company, Inc. via Copyright Clearance Center, Inc.

Table 2.1 Major Components of the Money Market

TABLE 2.1

Major components of the money market

	$ Billion
Repurchase agreements	$1,150.2
Small-denomination time deposits*	1,164.4
Large-denomination time deposits*	2,155.7
Eurodollars	530.3
Treasury bills	911.5
Commercial paper	2,252.5
Savings deposits	3,874.8
Money market mutual funds	2,390.0

*Small denominations are less than $100,000.

Sources: *Economic Report of the President*, U.S. Government Printing Office, 2007; *Flow of Funds Accounts of the United States*, Board of Governors of the Federal Reserve System, June 2007.

Figure 2.3 The Spread between 3-month CD and Treasury Bill Rates

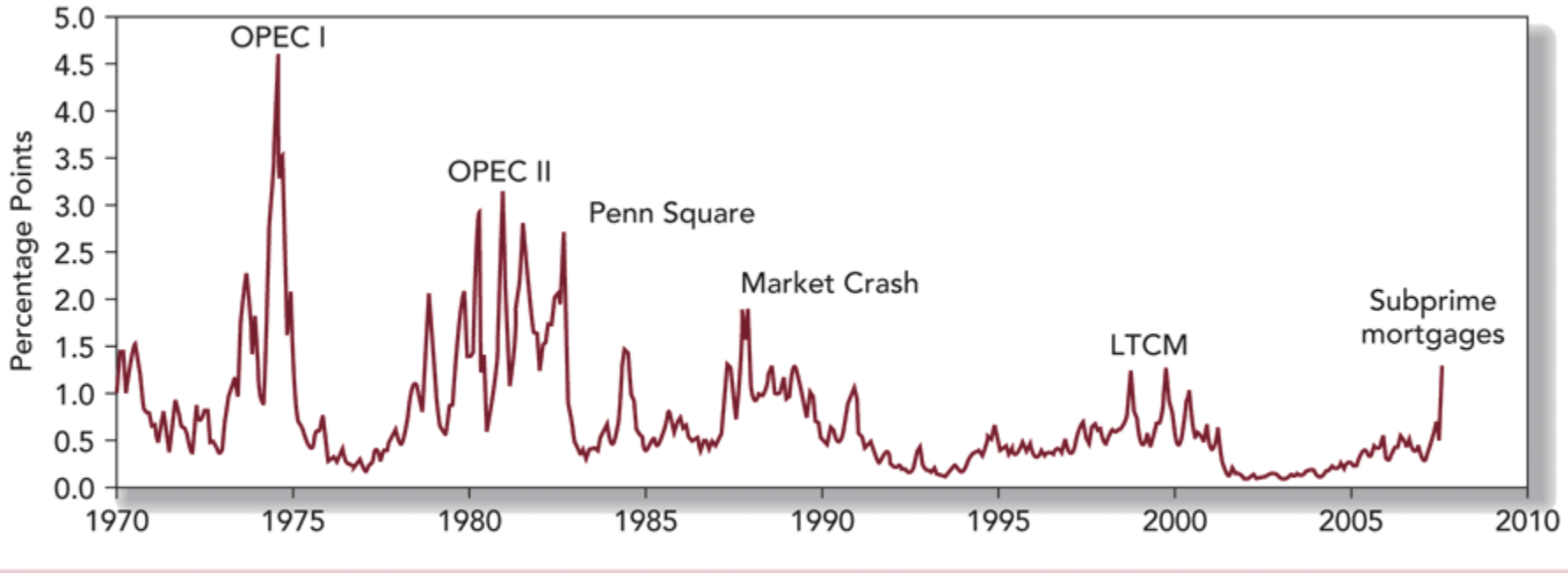


FIGURE 2.3 The spread between 3-month CD and Treasury bill rates

The Bond Market

- Longer term borrowing
- Debt instrument that are not traded in money market
- Mostly traded with fixed income capital market instruments
  - Either fixed stream of income
  - Stream of income that is determined from specific formula

The Bond Market

- Treasury Notes and Bonds
- Inflation-Protected Treasury Bonds
- International Bonds
- Municipal Bonds
- Corporate Bonds
- Mortgages and Mortgage-Backed Securities

Treasury Notes and Bonds

- Maturities
  - Used by government for debt financing
  - Notes – maturities up to 10 years
  - Bonds – maturities in excess of 10 years
  - 30-year bond
  - Semiannual interest payments called coupon payment
- Par Value - $1,000
- Quotes – percentage of par

Inflation-Protected Treasury Bonds

Called TIPS

- The principal amount is adjusted in proportion to increase of CPI

International Bonds

- Many firms borrow abroad and many investors buy bonds from foreign issuers
- In additional to national capital markets, there is a rising international capital market, largely concentrated in London
- A Eurobond
  - Bond denominated in a currency that is different from country where it is issued
    - Eurodollar bond
      - E.g. A dollar-denominated bond sold in UK
- Many firms also issue bonds in different currency that is same as a currency of a investor
  - Yankee bond dollar denominated, sold in US by non-dollar issuer
  - Samurai bond yen denominated bond, sold in Japan by non-Japanese issuer

Municipal Bonds

- Issued by state and local governments
- Types
  - General obligation bonds
    - Backed by faith and credit of issuer
  - Revenue bonds
    - Issue to finance commercial project
      - Backed by revenues from this project
      - Airports, hospitals, etc.
      - Riskier than GOB
    - Industrial revenue bonds
      - Revenue bond to finance commercial enterprises
- Maturities – range up to 30 years

Corporate Bonds

- Issued by private firms
  - Borrow money directly from public
  - In structure almost same as Treasury issues
    - Semi-annual coupon
    - Return the face value
    - But different degree of risk – default risk
- Secured bonds – collateral backing them in the event of firm bankruptcy
- Unsecured bonds - debentures – no collateral
- Subordinate debentures – lower priority claim to firm's assets
- Options in corporate bonds
  - Callable – right of issuer to repurchase bond from the holder at a set price
  - Convertible - right of issuer to convert bond into a number of shares of stock

Mortgages and Mortgage-Backed Securities

- Developed in the 1970s to help liquidity of financial institutions
  - Mortgages written for long term 15 – 30 year maturity with fixed interest rate and fixed monthly payments – conventional mortgages
    - Difficulties from lenders if interest rate increase
      - Adjustable-rate mortgage
- Mortgage-Backed Security
  - Proportional ownership of a pool or a specified obligation secured by a pool
  - Securitization in mortgage market
  - Called as a pass-throughs
- Market has experienced very high rates of growth
- http://www.youtube.com/watch?v=wfqvSSGKJIA

Figure 2.7 Mortgage-backed Securities Outstanding, 1979-2007

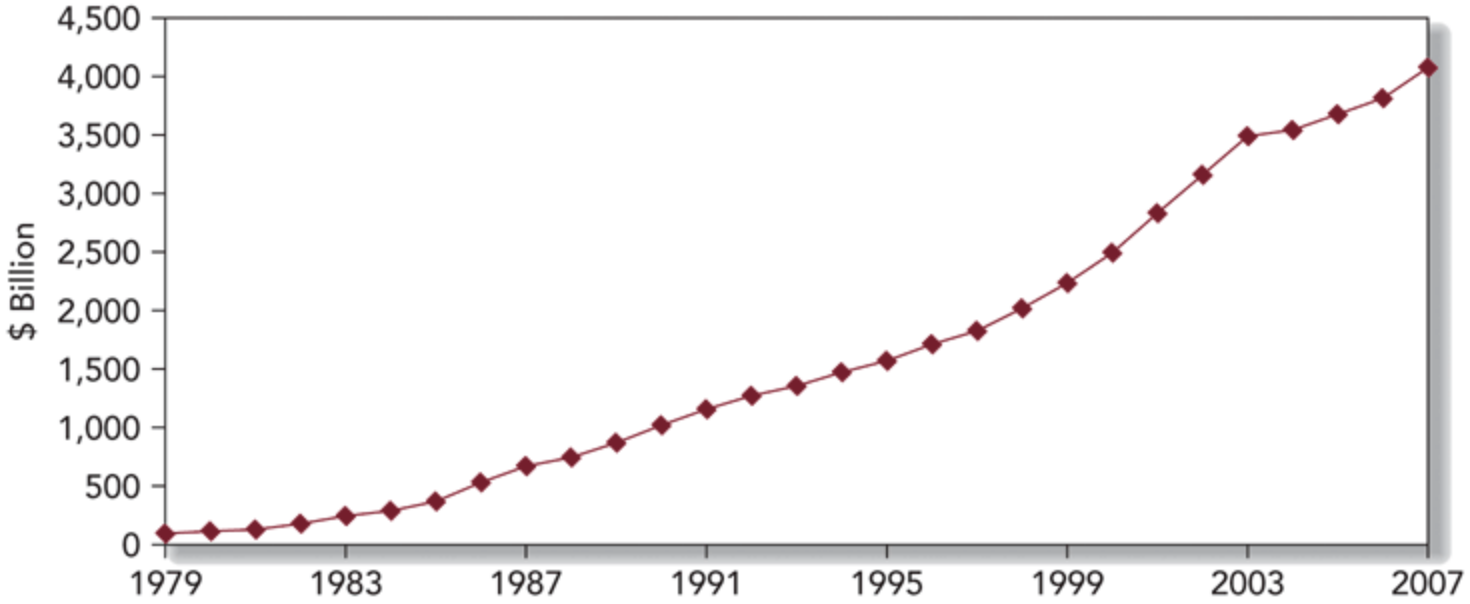


FIGURE 2.7 Mortgage-backed securities outstanding, 1979–2007

Source: *Flow of Funds Accounts of the United States*, Board of Governors of the Federal Reserve System, June 2007.

Equity Securities

- Represent ownership in a corporation
- The corporation is controlled by a board of directors that are elected by shareholders
- The boar that meet only a few time each year selects managers who actually run the corporation on a day-to day basis.

Equity Securities

- Common stock
  - Residual claim
    - The last in line of all those who have a claim on the assets and income of the corporation
    - After tax authorities, employees, suppliers, bondholders and other creditors
    - If a firm is not in liquidation
      - After interest and taxes
  - Limited liability
    - Shareholders can lose only original investment

Figure 2.8 Listing of Stocks Traded on the NYSE

NAME	SYMBOL	CLOSE	NET CHG	VOLUME	52 WK HIGH	52 WK LOW	DIV	YIELD	P/E	YTD% CHG
Gencorp	GY	13.59	–0.29	491,300	20.75	12.02	....	....	dd	–3.1
Genentech	DNA	83.68	–0.35	3,986,300	94.46	75.58	....	....	49	3.1
General Cable	BGC	42.67	–1.11	679,700	45.41	20.3	....	....	23	–2.4
General Dynamics	GD	74.59	0.17	1,497,300	77.98	56.68	0.92	1.2	16	0.3
General Electric	GE	37.56	–0.19	26,907,700	38.49	32.06	1.12	3	23	0.9
General Gwth Prop	GGP	51.51	–0.8	1,308,200	56.14	41.92	1.8	3.5	215	–1.4
General Maritime	GMR	34.56	–0.83	597,400	40.64	30.34	4.8	13.9	5	–1.8
General Mills	GIS	56.97	–0.42	1,355,600	59.23	47.05	1.48	2.6	18	–1.1
General Motors	GM	30.24	0.6	10,477,600	36.56	19	1	3.3	dd	–1.6
Genesco Inc	GCO	36.75	–0.9	127,900	43.72	25.5	....	....	15	–1.5
Genesee & Wyoming	GWR	25.86	–0.5	364,500	36.75	21	....	....	9	–1.4
Genesis Lease	GLS	23.6	0.1	298,500	24.4	23	....	....	....	0.4
Genuine Parts co.	GPC	46.86	–0.51	384,400	48.34	40	1.35	2.9	17	–1.2
Genworth Financial	GNW	33.79	–0.32	1,414,900	36.47	31	0.36	1.1	13	–1.2
Geo Group Inc	GEO	37.57	–1.53	157,500	40.3	14.69	....	....	35	0.1
Georgia Gulf	GGC	18.69	–0.38	479,000	34.65	18.36	0.32	1.7	6	–3.2
Gerber Scientific	GRB	12.32	–0.07	243,200	16.8	9	....	....	27	–1.9
Gerdau Ameristeel	GNA	8.59	–0.04	446,200	11.02	5.85	0.08	0.9	7	–3.7
Gerdau S.A. Ads	GGB	15.57	–0.56	1,729,100	18.16	11.27	0.58	3.7	....	–2.7

FIGURE 2.8 Listing of stocks traded on the New York Stock Exchange

Source: Compiled from data from *The Wall Street Journal Online*, January 9, 2007.

Equity Securities

- Preferred stock
  - Fixed dividends - limited
    - Same as infinite-maturity bonds
    - No voting rights
  - Cumulative preffered stock
    - Unpaid dividends are cumulated and must be paid in fully before any other dividends
  - Tax treatment
    - Are not tax-deductible expenses for the firm
- Depository receipts - ADRs
  - Certificated that represent ownership in shares of a foreign company
  - Traded un U.S. markets

Stock Market Indexes

- There are several broadly based indexes computed and published daily
- There are several indexes of bond market performance
- Price-weighted index vs. Market capitalization weighted index
- Others include:
  - Financial Times Index

Dow Jones Industrial Average - NYSE

- Includes 30 large blue-chip corporations
- Computed since 1896
- Originally simple average of the stocks included in the index
  - Add up prices of the 30 stocks and it is divided by 30
  - Percentage change in DJIA is percentage change in average price of the 30 shares
  - Holding of portfolio of 30 shares (one share of each stock in the index)
    - Value of portfolio is value of 30 shares
- Price-weighted average

Standard & Poor's Indexes

Improvements of DJIA in two ways

- Broadly based index of 500 firms
  - Market-value-weighted index
  - Calculating the total market value of 500 firms and total market value of those firms in previous day
  - The change in the value represent the change in index
  - The rate of return of index represent the rate of return of portfolio of investor that hold 500stocks in proportion to their market value

- How to invest in index
  - Index funds
  - Exchange Traded Funds (ETFs)

Other U.S. Market-Value Indexes

- NASDAQ Composite
  - Index of all NASDAQ listed stocks
    - Subindexes – industrial, utility, transportation and financial stocks
  - Mode broadly bases than S&P 500
- NYSE Composite
- Wilshire 5000
  - NYSE and Amex stocks plus actively traded NASDAQ stocks
  - About 6000 stocks

Foreign and International Stock Market Indexes

- Nikkei (Japan)
- FTSE (Financial Times of London)
  - ”footsie”
- DAX (Germany)
- MSCI (Morgan Stanley Capital International)
  - International index
    - About 50 country indexes and some regional indexes
- Hang Seng (Hong Kong)
- TSX (Canada)


SPX C 1695.00 +13.45 1692.01 / 1698.05
On 01 Oct d O 1682.41 H 1696.55 L 1682.07 Prev 1695.00
SPX Index
95) Save As
96) Actions
97) Edit
98) Table
Line Chart
03/31/1970 - 10/02/2013
11) Compare
Mov. Avgs
1D 3D 1M 6M YTD 1Y 5Y Max Quarterly
Security/Study
Event
Last Price
SPX Index (R1) 1695.00
DAX Index (R2) 8651.53
INDU Index (R2) 15191.70
NKY Index (R3) 14170.49
UKX Index (R2) 6425.72
HSI Index (R3) 23046.27
INDU Index (R2) 15191.70
SPTSX Index (R2) 12847.44
1970-1974
1975-1979
1980-1984
1985-1989
1990-1994
1995-1999
2000-2004
2005-2009
2010-2014
Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2013 Bloomberg Finance L.P.
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SPX C 1695.00 +13.45 1692.01 / 1698.05
On 01 Oct d O 1682.41 H 1696.55 L 1682.07 Prev 1695.00
SPX Index 95) Save As 96) Actions 97) Edit 98) Table Line Chart
03/31/1970 - 10/01/2013 11) Compare Mov. Avgs
1D 3D 1M 6M YTD 1Y 5Y Max Quarterly Security/Study Event
Last Price
SPX Index (R1) 1695.00
INDU Index (R3) 15191.70
MDX Index (R2) 3253.045
1970-1974 1975-1979 1980-1984 1985-1989 1990-1994 1995-1999 2000-2004 2005-2009 2010-2014
Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2013 Bloomberg Finance L.P.
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YHOO US $ C 34.31 +1.14 Q34.30 / 34.31 K 114 x 23
On 01 Oct d Vol 28,180,896 O 33.36 K H 34.4426 M L 33.30 K Val 954.667M
YHOO US Equity 95) Save As 96) Actions 97) Edit 98) Table Line Chart
01/30/1998 - 10/01/2010 11) Compare Mov. Avgs
1D 3D 1M 6M YTD 1Y 5Y Max Monthly Security/Study Event
Last Price
YHOO US Equity (R1) 14.27
MDX Index (R3) 1996.600
SPX Index (R2) 1146.24
YHOO US Equity - Volume 16.096M
SMAVG (15) 461.794M
1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010
Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2013 Bloomberg Finance L.P.
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Feedback
Index Weightings
NASDAQ COMPOSITE INDEX
7 Groups, Index Weight (%) calculated by Bloomberg
Members
Historical Summary
Measure Weight %
Grouping Index Sectors
Freq Yearly
Name 2011-12-30 2010-12-31 2009-12-31 2008-12-31 2007-12-31 2006-12-29
11) NASDAQ COMPOSITE INDEX 100.00 100.00 100.00 100.00 100.00 100.00
12) NASDAQ COMPUTER INDEX 49.32 45.88 46.04 40.78 45.27 41.41
13) NASDAQ INDUSTRIAL INDEX 34.16 33.48 31.21 31.67 30.15 30.69
14) NASDAQ TELECOMM INDEX 6.76 10.46 12.14 12.28 12.59 12.31
15) NASDAQ BANK INDEX 4.08 4.33 4.54 7.55 5.63 8.44
16) NASDAQ OTHER FINANCIAL 3.20 3.17 3.47 3.82 3.05 3.33
17) NASDAQ TRANSPORTATION IX 1.49 1.69 1.60 2.27 1.93 2.12
18) NASDAQ INSURANCE INDEX 0.99 0.99 1.01 1.62 1.38 1.68
6M YTD 1Y 2Y 3Y 4Y 5Y 7Y 10Y 3) Custom...
Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2013 Bloomberg Finance L.P.
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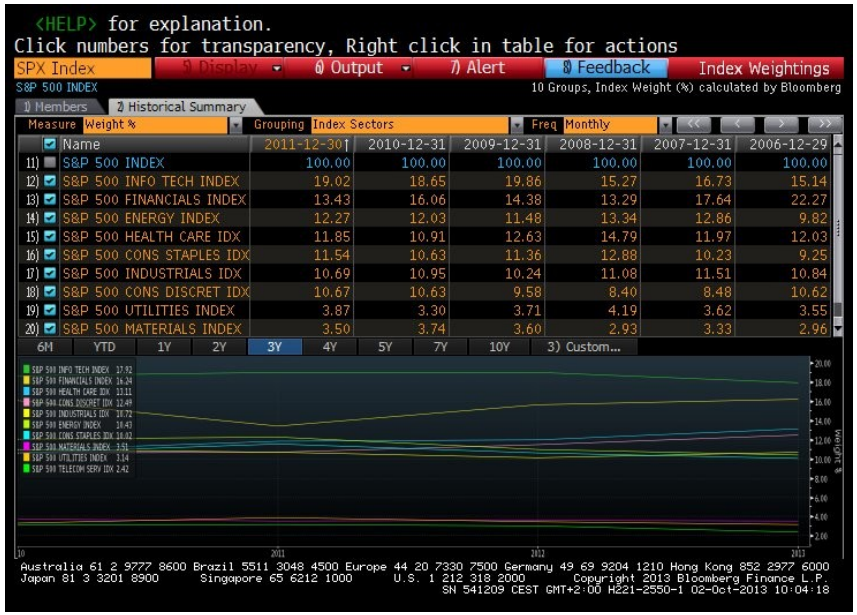
<HELP> for explanation.
Click numbers for transparency, Right click in table for actions
SPX Index
Display
Output
Alert
Feedback
Index Weightings
S&P 500 INDEX
10 Groups, Index Weight (%) calculated by Bloomberg
Members
Historical Summary
Measure Weight %
Grouping Index Sectors
Freq Monthly
Name 2011-12-30 2010-12-31 2009-12-31 2008-12-31 2007-12-31 2006-12-29
11) S&P 500 INDEX 100.00 100.00 100.00 100.00 100.00 100.00
12) S&P 500 INFO TECH INDEX 19.02 18.65 19.86 15.27 16.73 15.14
13) S&P 500 FINANCIALS INDEX 13.43 16.06 14.38 13.29 17.64 22.27
14) S&P 500 ENERGY INDEX 12.27 12.03 11.48 13.34 12.86 9.82
15) S&P 500 HEALTH CARE IDX 11.85 10.91 12.63 14.79 11.97 12.03
16) S&P 500 CONS STAPLES IDX 11.54 10.63 11.36 12.88 10.23 9.25
17) S&P 500 INDUSTRIALS IDX 10.69 10.95 10.24 11.08 11.51 10.84
18) S&P 500 CONS DISCRET IDX 10.67 10.63 9.58 8.40 8.48 10.62
19) S&P 500 UTILITIES INDEX 3.87 3.30 3.71 4.19 3.62 3.55
20) S&P 500 MATERIALS INDEX 3.50 3.74 3.60 2.93 3.33 2.96
6M YTD 1Y 2Y 3Y 4Y 5Y 7Y 10Y 3) Custom...
Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2013 Bloomberg Finance L.P.
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Derivatives Markets

- One of the most significant developments in financial markets in recent years
- Provide payoffs that depends on development of another assets such commodity prices, bonds, stocks, market indexes, etc.
- Derivative assets or contingent claims
  - Value derive from or is contingent on the values of another assets

Derivatives Markets

Options

- Basic Positions
  - Call (Buy)
  - Put (Sell)
- Terms
  - Exercise Price or strike price
  - Expiration Date
  - Assets

Futures

- Basic Positions
  - Long (Buy)
  - Short (Sell)
- Terms
  - Delivery Date
  - Assets

Thank you for your attention