

Lecture 4: Security Trading

ECON435: Financial Markets and the Macroeconomy

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Review: Equity Markets

- common stock vs. preferred stock
- most important US indices: S&P500, DJIA, NASDAQ
- price-weighted vs. value-weighted indexes

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Markets for Securities

Primary market:

- firms raise capital by issuing (selling, floating) securities

Secondary market:

- trading of existing securities between investors
- stock of outstanding securities unaffected

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Categories of Primary Markets

Primary markets for bonds:

- public offering
- private offering

Primary markets for equity:

- IPO (initial public offering)
- seasoned offering: firms that have already floated equity on stock markets before

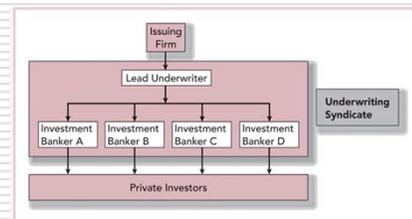
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Investment Banks

- Advise security issuer
- Create a preliminary prospectus (red herring) and final prospectus
- Underwrite the security issue = they take on the risk of issuance
- Typically this risk is shared in a syndicate
- Sell the securities to the public

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The Investment Banking Process



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IPOs

Investment banks

- organize road shows
- organize the bookbuilding process to determine price and size of issue

IPOs often are

- underpriced → large 1st day returns
- underperform the market for years

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Other Forms of Primary Issuance

- Shelf registration:
 - one-time SEC registration
 - gradual security issuance over two years
- Private placements:
 - can be sold only to large, sophisticated investors → smaller target group
 - no prospectus required
 - do not trade in secondary markets
 - mostly used for debt securities

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Types of Markets (by liquidity)

Direct search markets:

- for rarely traded securities

Brokered markets:

- Brokers assist trading, e.g. real estate market, primary markets, large block transactions

Dealer markets:

- Dealers commit to buying/selling securities
- Profit from bid/ask spread

Auction markets:

- all buyers/sellers converge at one integrated place
- only for frequently traded securities
- continuous auction or periodic auction

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Types of Orders

- Market orders:
 - immediate execution at current market price
- Limit orders:
 - execution only if price satisfies the limit = maximum purchase price or minimum sale price
 - limit order book records all transactions waiting
- Stop orders:
 - stop loss: sell if price falls below a certain level
 - stop buy: buy if price rises above specified level

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Example: Limit Order Book INTC

Bid				Ask			
ID	Price	Size	Time	ID	Price	Size	Time
ARCA	20.77	23100	14:08:23	ARCA	20.78	27200	14:08:23
ARCA	20.76	35725	14:08:22	ARCA	20.79	31800	14:08:23
ARCA	20.75	37391	14:08:21	ARCA	20.80	32600	14:08:22
ARCA	20.74	24275	14:08:23	ARCA	20.81	30500	14:08:22
ARCA	20.73	20524	14:08:23	ARCA	20.82	17090	14:08:21
ARCA	20.72	6890	14:08:21	ARCA	20.83	19650	14:08:01

- inside quotes: top of each column
- inside spread: here 1c

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Trading Mechanisms

- Dealer markets:
 - dealers quote prices
 - trade over-the-counter (OTC)
 - since 1971: NASDAQ System (National Association of Securities Dealers Automated Quotations System)
- Electronic communication networks (ECNs):
 - allow all participants to quote prices
 - automatically match trades
- Specialist markets: one specialist for each security
 - can act as a broker: keep order book and match trades
 - can act as a dealer: maintain "fair and orderly market" → post tight bid-ask spread to participate in trades → to maintain low price volatility

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NASDAQ

- ❑ originally a dealer market
- ❑ nowadays much like an ECN, through INET
- ❑ Three listing options for firms:
 1. NASDAQ Global Select Market
 2. NASDAQ Global Market
 3. NASDAQ Capital Market
- ❑ Three subscription levels for traders:
 - Level 1: receive only inside quotes
 - Level 2: receive the entire order book
 - Level 3: can enter quotes into the order book
- ❑ for smaller firms: pinksheets.com

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NASDAQ Listing Requirements

	NASDAQ Global Market	NASDAQ Capital Market
Shareholders' equity	\$15 million	\$5 million
Shares in public hands	1.1 million	1 million
Market value of publicly traded shares	\$8 million	\$5 million
Minimum price of stock	\$5	\$4
Pretax income	\$1 million	\$750,000
Shareholders	400	300

Source: The NASDAQ Stock Market, www.nasdaq.com. December 2006. The NASDAQ Stock Market, Inc. Reprinted with permission.

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New York Stock Exchange (NYSE)

- ❑ specialist market:
 - smaller orders sent electronically (e.g. through NYSE Arca)
 - larger orders executed via a floor broker or by "block houses"
- ❑ limited number of brokers on the floor (1366 "seats")
- ❑ 2006: NYSE Group became listed company (ticker symbol NYX)
- ❑ 2007: merger created NYSE Euronext
- ❑ 2011: merger with Deutsche Boerse?

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NYSE Listing Requirements

Minimum annual pretax income in previous 2 years	\$ 2,000,000
Revenue	\$ 75,000,000
Market value of publicly held stock	\$100,000,000
Shares publicly held	1,100,000
Number of holders of 100 shares or more	2,200

Source: New York Stock Exchange, www.nyse.com January 2007.

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NYSE Stock Price (past 2y)



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Bond Trading

- ❑ Most trades executed by bond dealers (i.e. big Wall Street firms)
- ❑ market rather illiquid
- ❑ Automated Bond System (ABS):
 - operated by NYSE Bonds
 - lists all bonds of NYSE-listed companies since 2006
 - not very liquid

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Clearing & Settlement

After a trade is executed:

- purchaser must deliver cash
 - seller must deliver security
 - delivery typically through broker
 - at NYSE: delivery by date T + 3 days
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- clearinghouse: net out the trades of all exchange members

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Buying on Margin

Buying on Margin:

- use your own funds to buy some securities
 - borrow money in the form of "broker's call loans"
 - use it to buy more securities
 - broker charges you interest + service fees on the loan
- "leverage" your investment

Margin = fraction of your total security holdings that initially needs to be financed with your own funds (set by the Fed: currently 50%)

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Margin Calls

Maintenance margin = percentage of your total security holdings that needs to be covered by your net worth

Margin calls: when prices fall and your net worth violates the maintenance margin, your broker will demand that you

- either add more net worth (cash/securities) to your account
- or sell securities from your account (at the fallen prices)

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Short Sales

Short sale = borrowing and selling a security you do not own to speculate on falling prices

- if price falls: you make a profit
- if price rises: you make a loss

Short seller needs to:

- post margin to protect broker against losses
- pay dividends to lender of security
- buy back the security back at a later date ("cover the short sale")

NOTE: you will receive a margin call if the maintenance margin is violated

NOTE 2: in Aug 2008, short-selling of financial stocks was temporarily forbidden

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Regulation of Securities Markets

1934: Securities and Exchange Commission (SEC) created to oversee

- issuance of securities
- full disclosure of all information relevant for investors
- register and regulate exchanges, brokers, dealers

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More Regulation

Securities Investor Protection Corporation (SIPC): protects clients if their brokers go bankrupt

Circuit Breakers: close markets if DJIA falls by 10%

Rules against Insider Trading

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