투자론

- *R*과 Excel을 통한 금융데이터 분석 -

1주차
금융과 금융시장

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Unit 03

How Securities are Traded

Overview

- How firms issue securities
  - Primary vs. secondary market
  - Privately held vs. publicly traded companies
  - Initial public offerings
- Market transactions
  - Short selling and buying on margin

How Firms Issue Securities

Primary Market

- Market for newly-issued securities
- Firms issue new securities through underwriter (investment banker) to public

Secondary Market

- Investors trade previously issued securities among themselves

How Firms Issue Securities

Privately Held Firms

- Up to 499 shareholders
  - Middlemen have formed partnerships to buy shares and get around the 499-investor restrictions
- Raise funds through private placement
- Lower liquidity of shares
- Have fewer obligations to release financial statements and other information

How Firms Issue Securities

Publicly Traded Companies

- Raise capital from a wider range of investors through initial public offering, IPO
- Public offerings are marketed by investment bankers or underwriters
- Registration must be filed with the SEC

Relationship Among a Firm Issuing Securities, the Underwriters, and the Public

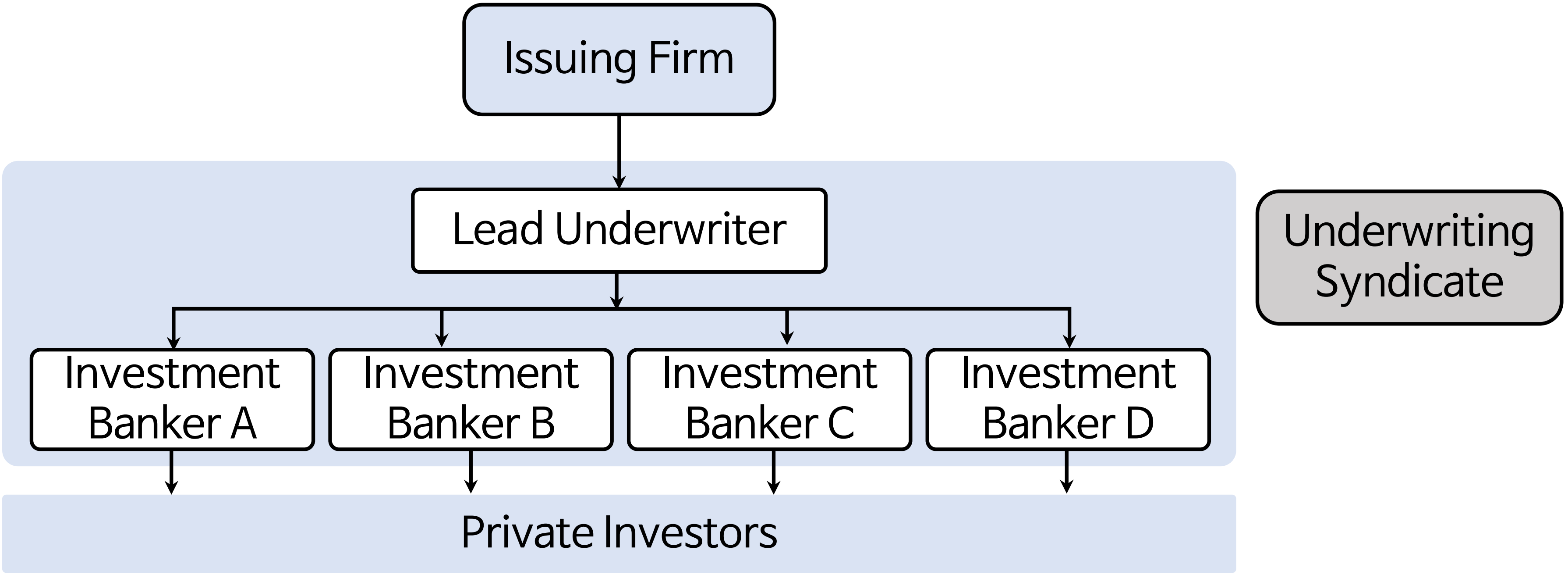

Figure 3.1 Relationship among a firm issuing securities, the under–writers, and the public

Relationship Among a Firm Issuing Securities, the Underwriters, and the Public

Initial Public Offerings

- Road shows to publicize new offering
- Bookbuilding to determine demand for the new issue
- Degree of investor interest in the new offering provides valuable pricing information

Relationship Among a Firm Issuing Securities, the Underwriters, and the Public

- **Underwriter bears price risk associated with placement of securities**
  - IPOs are commonly underpriced compared to the price they could be marketed (ex.: Groupon)
  - Some IPOs, however, are well overpriced (ex.: Facebook); others cannot even fully be sold

Relationship Among a Firm Issuing Securities, the Underwriters, and the Public

Types of Markets

Direct search	Buyers and sellers seek each other
Brokered markets	Broker search out buyers and sellers
Dealer markets	Dealers have inventories of assets from which they buy and sell
Auction markets	Traders converge at one place to trade

Bid-Ask Spread

Bid price

- Bids are offers to buy.
- In dealer markets, the bid price is the price at which the dealer is willing to buy.
- Investors “sell to the bid.”
- Bid-ask spread is the profit for making a market in a security.

Bid-Ask Spread

Ask price

- Asked prices represent offers to sell.
- In dealer markets, the asked price is the price at which the dealer is willing to sell.
- Investors must pay the asked price to buy the security.

Types of Order

Market Order

- Executed immediately
- Trader receives current market price

Price-Contingent Order

- Traders specify buying or selling price

A large order may be filled at multiple prices

Price-Contingent Orders

		Condition	
		Price below the Limit	Price above the Limit
Action	Buy	Limit-Buy Order	Stop-Buy Order
	Sell	Stop-Loss Order	Limit-Sell Order

Figure 3.5 Price-contingent orders

Trading Mechanisms

- Dealer markets
- Electronic communications networks (ECNs)
  - True trading systems that can automatically execute orders
- Specialist markets
  - Maintain a “fairly and orderly market”
  - Have been largely replaced by ECNs

Teach Yourself

- NYSE, NASDAQ
- 한국거래소
- Why is Electronic Trading more efficient?
  (from the historical perspective)

New Trading Strategies

- Algorithmic Trading
- High-Frequency Trading
- Dark Pools
  - Trading venues that preserve anonymity, mainly relevant in block trading

Margin Buying

- Borrowing part of the total purchase price of a position using a loan from a broker
- Investor contributes the remaining portion
- Margin refers to the percentage or amount contributed by the investor
- You profit when the stock rises

Margin Buying

- Initial margin is set by the Fed
  (U.S., by financial authority in ROK)
  - currently 50% (same in ROK)

- Maintenance margin
  - minimum equity that must be kept in the margin account
  - margin call if value of securities falls too much

Example 3.1

Margin Call

Current Share price $100:

Initial margin = 60%, Maintenance margin = 40%, Shares purchased = 100

Initial Position: Stock = $10,000, Borrowed = $4,000, Equity = $6,000

Stock price falls to $70 per share

New position: Stock = $7,000, Borrowed = $4,000, Equity = $3,000

Margin % = $3,000/$7,000 = 43%

Example 3.2

Maintenance Margin

How far can the stock price fall before a margin call?
Let maintenance margin = 30%.

Equity = 100P − $4,000
Percentage margin = (100P − $4,000)/100P = 0.30
Solution: P = $57.14

Short Selling

Purpose

- To profit from a decline in the price of a stock or security

Mechanics

- Borrow stock through a dealer
- Sell it and deposit proceeds and margin in an account
- Closing out the position: buy the stock and return to the party from which it was borrowed

Example 3.3

Short sale initial conditions

Short 1,000 shares of Dot Bomb Stock:

Initial margin = 50%, Maintenance margin = 30%, Initial price = $100

Sale proceeds = $100,000, Margin & Equity = $50,000, Stock owed = 1,000 shares

If Dot Bomb stock price falls to $70 per share?

Example 3.3

Short sale initial conditions

Assets	Liabilities	Equity
$100,000 (sale proceeds)	$70,000 (buy shares)	US$80,000

Profit = Ending equity − Beginning equity

= $80,000 − $50,000 = $30,000

= Decline in share price x Number of shares sold short

Example 3.3

Margin Call

How much can the stock price rise before a margin call?

($\$150{,}000^{*} - 1000P) / (1000P) = 30\%$

$P = \$115.38$

* = Initial margin plus sale proceeds