Financial Markets: Part III

BUSS254 Investments

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Lecture Outline

- Money markets: Call, Repo, CD, CP, etc.
- Capital markets: Bond, Equity
- Derivatives markets: Futures, options etc.
- Trading mechanisms
- Investment Companies
- Reading: BKM Ch. 3 and 4

Trading Mechanics

Why Trade?

- **Information-driven trading**: Traders act on private or public information.
- **Non-information-driven trading**:
  - **Hedging**: Reducing risk exposure.
  - **Liquidity needs**: Buying or selling for cash flow reasons.
- **Noise trading**: Trading without fundamental justification, often irrational or random.

Types of Orders

- **Market order**: Executes immediately at the best available price.
  - Quick execution vs. Price uncertainty.
- **Limit order**: Specifies price and waits for execution at that price or better.

- Price control vs. Execution uncertainty.

- **Stop order**: Becomes a market order once the stop price is triggered.
  - **Stop-loss**: Sells when the price falls below a set level.
  - **Stop-buy**: Buys when the price rises above a set level.
- **Short selling**: Selling borrowed shares to profit from a price decline.
- **Margin trading**: Borrowing funds to amplify trading positions, increasing both potential gains and risks.

Margin Trading

- **Margin Purchase** = Borrowing + Investor's Equity
- **Initial Margin**: Minimum equity required to open a position.
- **Maintenance Margin**: Minimum equity required to keep the position open.
- **Margin Call**: If the value of securities falls too much, the investor must:
  - Deposit more equity ($\geq$ initial margin), or
  - Liquidate the position.

Margin Trading: Example

- **Stock Price**: \$100 per share
- **Shares Purchased**: 100
- **Initial Margin**: 60%
- **Maintenance Margin**: 30%

Initial Position:

Asset	Value	Liability	Equity
Stock	\$10,000	Borrowed	\$4,000
		Investor Equity	\$6,000

If Stock Price Falls to \$70:

Asset	Value	Liability	Equity
Stock	\$7,000	Borrowed	\$4,000
		Investor Equity	\$3,000

- **Margin%** = Equity / Market Value = $\frac{\$3{,}000}{\$7{,}000} = 43\%$
  - Since $43\% > 30\%$ (maintenance margin), no margin call.

Margin Trading: Maintenance Margin

How far can the stock price fall before a margin call?

- **Maintenance Margin** = 30%
- **Formula for Equity**: Equity = Market Value − Borrowed Amount $= 100P - 4,000$
- **Margin% Formula**: $\frac{100P-4,000}{100P} = 0.30$
- **Solving for Price**:

$$100P - 4,000 = 30P$$

$$70P = 4,000$$

$$P = 57.14$$

Short Sales

- Selling securities that you do not own to profit from a decline in the price of the securities
  1. **Borrow securities** through a dealer or broker.
  2. **Sell them** and deposit the proceeds along with the margin in an account.
     - You **cannot withdraw** the proceeds until you "cover" the position.
  3. **Closing out the position**: Buy back the securities and return them to the lender.
- Naked short-selling:
  - Selling shares **without borrowing them first**, assuming they can be acquired later.

- **Illegal** due to the risk of delivery failure.

Short Sales: Example

- **Stock X**: 1000 shares
- **Initial Price**: $100 per share
- **Initial Margin**: 50%
- **Maintenance Margin**: 30%

Position Setup:

Item	Value
Sale Proceeds	$100,000
Initial Margin	$50,000
Stock Owed	1000 shares

Balance Sheet:

Assets	**Liabilities**
$100,000 (sale proceeds)	$100,000 (shares owed)
$50,000 (initial margin)	
	Equity
	$50,000

Short Sales: Example (cont'd)

- If Price Falls to **$70 per share**:

Assets	**Liabilities**
$100,000 (sales proceeds)	$70,000 (shares)
$50,000 (initial margin)	
	Equity
	$80,000