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# Equity Investments CFA一级知识框架图



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# Reading 44



Market Organization And Structure

# Introduction of Financial Market

## Concepts

### 3 Main Functions of the Financial Market

- Fulfill different entities' requirements: **Information-motivated traders**
- Determine interest rates: **Equilibrium interest rate**
- Allocate capital to its most efficient uses

### Intermediaries of Financial Market

- Brokers, Dealers and Exchange
- Securitizers
  - **SPV**
- Depository Institutions
- Insurance Companies
  - **Moral hazard, Adverse selection, fraud**
- Arbitrageurs
- Clearinghouses and Custodians
- Hedgers

概念，学会识别参与者

### Well functioned financial market

- Complete markets
- Operational efficiency
- Informational efficiency
- Allocational efficiency

Market  
Regulation

Problems of no regulations	Objectives of market regulations
Fraud and theft	Protect unsophisticated investors.
Insider trading	Prevent insiders from exploiting other investors.
Costly information	Common financial reporting requirements.
Defaults	honor long-term commitments.

# Assets and Markets

## Classification of markets

- Primary vs. Secondary markets
- Money vs. Capital markets
- Traditional vs. Alternative markets

★ 3种分类，区分概念

## Secondary Capital Markets

### When securities are traded

- Call Markets
- Continuous Markets

### How securities are traded

- **Order-Driven Market**
  - Price priority
  - Secondary precedence rule
- **Quote-Driven Market**
  - Bid-Ask Spread
- **Brokered Markets**

## How securities are sold through primary market

- Sold Publicly :
  - Underwritten Offering (*the most common way*)
  - Best Efforts
  - Indications of Interest
- Sold Privately
  - Private placement → *to qualified investors*
- Other transaction methods
  - Shelf registration
  - Dividend Reinvestment Plan → *existing shareholders*
  - Rights Offering → *existing shareholders*

★ 概念，投行如何发行证券

Underwritten offering	Best Efforts
IB bears risk	Company bears risk
price be set low enough	sets the issue price as high as possible

★ 概念，交易规则

## Classification Of Assets

### •Financial Assets

- Security
  - Fixed income vs. Equity Securities
  - Public vs. private
- Currency
- Derivative contracts
  - Financial derivative contracts
  - Physical derivative contracts

### •Real Assets

- Commodity
- Real Estate

概念，注意子分类

## Positions An Investor Can Take

- Long Position
  - Benefit form an **increase** in the price
- Short Position → **Payment in lieu** ★ ★
  - Benefit form an **decrease** in the price
- Leveraged Position
  - Benefit form an **increase** in the price



Margin Call Price

$$P'_L = P_0 \left( \frac{1 - IM}{1 - MM} \right)$$

★ ★ 计算，买空卖空业务

### Fixed income



Bonds	Generally <i>long-term</i>
Notes	<i>Intermediate term</i>
Bills	<i>Short term</i>
Commercial paper	<i>Short term</i> issued by firms
Certificates of deposit	Issued by <i>banks</i>
Repurchase agreements	Repurchase agreements can be for terms as short as one day
Convertible debt	can exchange for a specified number of equity shares

### Equity



Common stock	<i>Residual claim</i> on a firm's assets.
Preferred stock	equity security with <i>scheduled dividends</i>
Warrants	Are <i>similar to options</i>

### Pooled investment vehicles



Mutual funds	<ul style="list-style-type: none"><li>• open-end funds</li><li>• closed-end funds</li></ul>
ETF/ETN	trade like closed-end funds and open-end fund
ABS	a claim to a portion of a pool of financial assets
Hedge funds	<ul style="list-style-type: none"><li>• organized as limited partnerships with leverage.</li><li>• compensated based on AUM.</li></ul>



# Practical Issues

## Instructions of transaction processes

★★ 概念，注意子分类

### Execution Instructions

- Market orders
  - Limit orders
  - All-or-nothing orders
  - Hidden orders
  - Iceberg orders
- Make a market
  - Make a new market
  - Take a market
  - Behind the market
  - At the market

### Validity Instructions

- Day orders
- Good-till-cancelled orders
- Immediate or cancel orders
- Good-on-close orders
- Good-on-open orders
- Stop orders ★

### Clearing Instructions

standing instructions and  
not attached to an order



提供information

## Market Information

信息透明度要求

- Pre-trade transparent → Preferred by **buy-side traders**
- Post-trade transparent → Preferred by **dealers**



# Reading 45



Security Market Indices



# Introduction of Security Market Index

## Definitions

- Price index
- Return index

## How An Index Is Constructed

- What is the target market the index is intended to measure?
- Which securities from the target market should be included in the index?
- How should the securities be weighted in the index?
- How often should the index be rebalanced?
- When should the selection and weighting of securities be re-examined?

## Uses of Indexes

- Reflection of investor confidence.
- Benchmark of manager performance.
- Measure of market return and risk.
- Measure of beta and risk-adjusted return.
- Model portfolio for index funds

Rebalancing and Reconstitution 区别

选标的

定权重★★★

计算, 缺点

## Weighting Schemes For Indexes

### • Price-Weighted Index

- Buy equal number of shares
- Bias toward **high price stock**
- Adjust of **dividers** when stock splits

### • Equal-Weighted Index

- Buy equal amount of money → **Most frequently rebalancing**
- Bias toward **small cap** stock
- **Arithmetic mean vs. Geometric mean**

### • Market Capitalization-Weighted Index

- Bias toward **non-tradable shares**

### • A Float-Adjusted Market Capitalization-Weighted Index

- Bias toward **overvalued stock**

### • Fundamental weighting

- **value-tilted**
- **contrarian-style**

## Common index

### Equity Indexes

- Broad market index
- Multi-market index
- Multi-market index with fundamental weighting
- Sector Index
- Style index

### Fixed-Income Indexes

- Large universe of securities
- turnover is high
- Dealer markets and infrequent trading

### Alternative Indexes

- Commodity indexes
- Real estate indexes
- Hedge Fund Indexes

了解特征

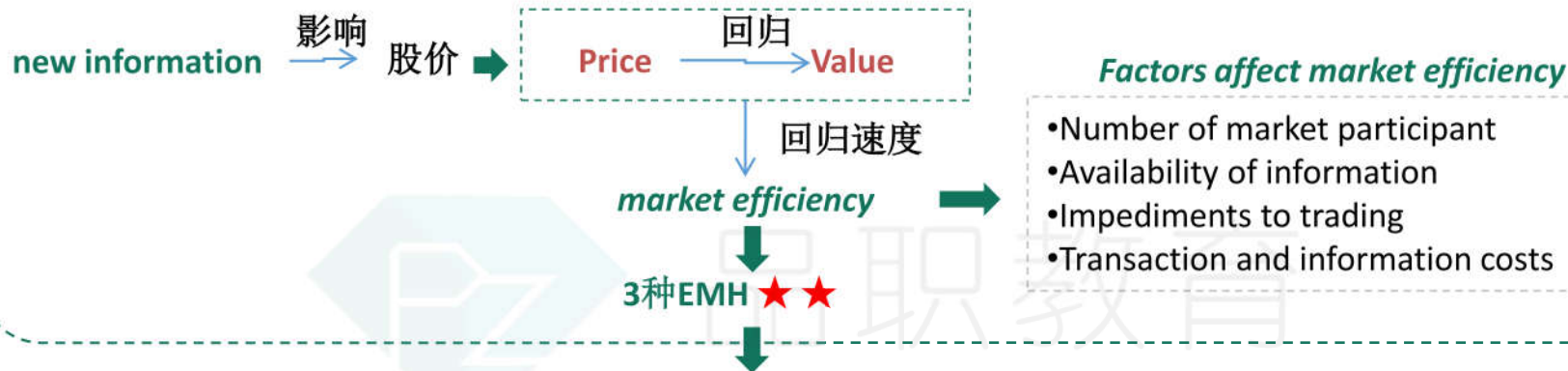


# Reading 46



Market Efficiency

# Market Efficiency



Types	Assumption	Implication
Weak-Form EMH	Market info • Price vs Volume	Technical Analysis ✗
Semi Strong-Form EMH	Public info. • Market vs Non-market	Fundamental Analysis ✗
Strong-Form EMH	All info. • Public vs. Private	Nobody can win the market → <i>Passive Investment</i>

包括信息范围、那些信息不能用



试图推翻EMH ★ →不能推翻EMH，概念

### Market Anomalies

- Calendar anomalies
- The overreaction effect
- Momentum anomalies
- Size effect
- Value effect
- Closed-end investment funds
- Earnings announcements
- Initial public offerings
- Economic fundamentals

### Behavioral Finance

- Loss aversion
- Overconfidence bias
- Representativeness
- Gambler's fallacy
- Mental accounting
- Conservatism
- Disposition effect
- Narrow framing
- Herding behavior



# Reading 47



Overview of Equity Securities



# Classification Of Equity Securities ★

## Publicly traded

- Common Shares
  - Callable common shares
  - Putable common shares
- Preference shares
  - Cumulative preference shares
  - Non-cumulative preference
- Convertible preference shares

## Privately traded

- Venture Capital
- Leverage Buyout
- PIPE

## Overseas Traded

- Direct investing
- Global registered shares
- Depository receipts ★
- BLDR

不同类型投资风险区别

# Risk And Return Characteristics Of Equity Securities

## Equity returns

- dividends
- reinvestment of dividends
- Capital gains or losses
- Foreign exchange g&l

## Equity Risk

- Preferred stock is less risky than common stock
- Cumulative preferred shares **less risk** than non-cumulative preferred shares
- Putable shares are **less risky** for investor
- callable shares are **more risky** for investor





# Reading 48



Introduction to Industry and company Analysis

# Top-down Process

## Step 1: Economic Analysis

- Macroeconomic
- Technology
- Demographics
- Governments
- Social influence

**五力模型** *Competitive Advantage* → *Pricing Power*  
**概念**

- Rivalry among existing competitors
- Threat of new entrants
- Threat of substitute products
- Bargaining power of buyers
- Bargaining power of suppliers

## Step 3: Company Analysis

- Three generic competitive strategies
  - Cost leadership
  - Differentiation
  - Focus

## Step 2: Industry Analysis

### *Industry Classification*

#### •*Industry Life Cycle* ★

- Embryonic stage
- Growth stage
- Shakeout stage
- Mature stage
- Decline stage

**各阶段特  
征识别**

#### •*Sensitivity of Business Cycle*

- Cyclical firm
- Non-cyclical firm
  - Defensive industries
  - Growth industries

#### •*statistical methods*

- limitations

**缺点**

*Peer  
Group*



# Reading 49



Equity Valuation: Concept and Basic Tool

# Different Types Of Dividends

## Cash dividends

- ↓ assets and equity.
- no effect on shareholder wealth

↓ 分类

Regular dividends  
Special dividends

## Stock dividends

- Create more shares
- A proportionate drop in the price per share
- No effect on shareholder wealth

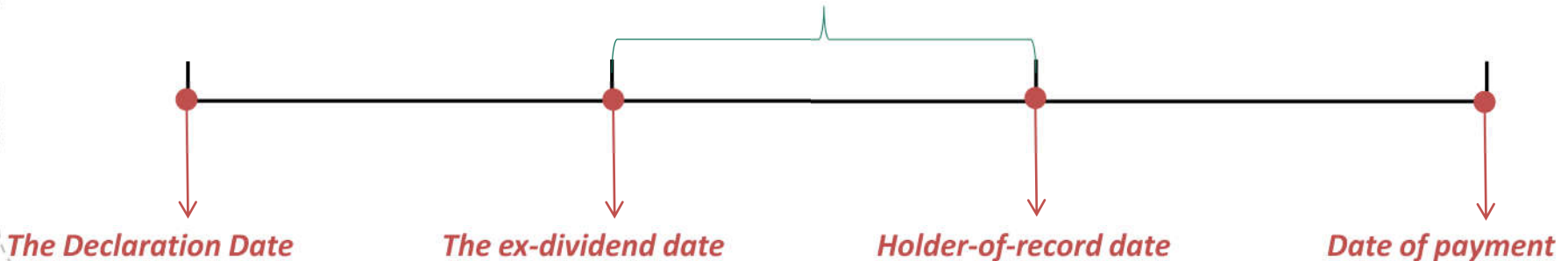
→ Reverse stock splits 反过来

## Share Repurchase

- Signaling of undervalued shares
- Flexibility
- Tax efficiency ( $T_d > T_{cg}$ )
- Absorb increases shares

### Dividend Payment Chronology

1 or 2 days



# Valuation Methods

## Method 1: DCF

DDM →

优先股 →  $V_p = \frac{D_p}{k_p}$

普通股

FCF Model

计算

GGM ★★ ★ →  $p_0 = \frac{D_0(1+g_c)}{r_e - g_c} = \frac{D_1}{r_e - g_c}$

计算

$$p_0 = \frac{D_0(1+g_c)}{r_e - g_c}$$

$D_0 = (1 - RR) \times EPS$   
 $g_c = ROE \times RR$   
 $r_e = RFR + \beta(R_{mkt} - RFR)$

Multi-Stage Model ★ 计算

假设,  
优缺点

### Assumption

- Dividends grow at a constant rate
- The constant growth rate will continue for an infinite period.
- The required rate of return  $r$  is greater than growth rate  $g$

### Limitations

- Very sensitive to  $r$  and  $g$
- Difficult with non-dividend stocks
- Difficult with unpredictable growth patterns

## Method 2: Price Multiple Approach

### Advantages

- Easily calculated
- Can be used in time series
- Cross session comparable

### Disadvantages

- Reflect only past

### Calculation

- Price multiples based on comparables
- Price multiples based on fundamentals

### Leading P/E

$$\frac{P_0}{E_1} = \frac{D_1/E_1}{k-g} = \frac{1-b}{k-g}$$

### Trailing P/E

$$\frac{P_0}{E_0} = \frac{(1-b)(1+g)}{k-g}$$

★计算

Enterprise value ★ 计算

EV = market value of common stock + market value of preferred equity + market value of debt – cash and short-term investments

## Method 3: Asset-based valuation

计算，有市场价格用市场价格，无则账面价值

- primarily tangible short-term assets
- assets with ready market values
- The firm will cease to operate and is being liquidated.

*Thank  
You!*







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