SS11-12 Equity

Thursday, August 5, 2021

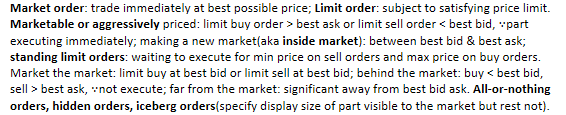
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# READING 36. MARKET ORGANIZATION AND STRUCTURE

* 1. Explain the main functions of the financial system
  2. Describe classifications of assets and markets
  3. Real assets: real estate, equipment, commodities, other physical assets; **Financial assets** (can be classified as debt or equity): **Securities(stocks, bonds), derivatives, currencies** 
     + **Debt** securities: promises to repay borrowed funds - bonds
     + **Equity** securities: represent ownership positions - common, preferred, warrants
     + Publicly traded securities: trade on exchanges or thru dealers, subject to regulations
     + Private securities: not traded in public markets, illiquid not subject to regulations
     + Derivative contracts: value depends on (or derives from) the value of other assets, ie equities, equity indexes, debt, debt index, other financial contracts; gold, oil, wheat
  4. **Spot market**s: markets for immediate delivery[forwards, futures, options]. **Primary market**: for newly issued securities, private placement, shelf registration, dividend reinvestment plan(DRP/DRIP), rights offering. **Secondary market**: subsequent sales of securities. Money market: for debt securities with maturities of ≤1yr. **Capital market**: for long-term debt and equity securities with no specific maturity date. **Traditional investment** market: debt & equity; **alternative** investment market: hedge funds, commodities, real estate, collectibles, gemstones, lease, equipment. (illiquid, due diligence, sell at discount)
  5. Describe the major types of securities, currencies, contracts, commodities, and real assets that trade in organized markets, including their distinguishing characteristics and major subtypes
  + Securities: fixed-income(debt-bonds, notes, commercial paper; convertible debt), equity, pooled investment vehicles(mutual funds, ETF/ETNotes, asset-backed securities, hedge funds); Currencies; Real assets;
  + Contracts: forward, futures, **swap** contract, options (put, call), insurance contract, **credit default swap**: insurance making payment if issuers defaults on bonds.
  + Commodity trade in spot, forward, futures market: metals, agriculture, energy, CO2 credit
  + Describe types of financial intermediaries and services that they provide
  + Financial intermediaries: brokers(agent finding a counterparty to trade), dealers(trading directly as counterparty with client), exchanges, securitizers, depository institutions, insurance companies, arbitrageurs, **clearinghouse** (counterparty risk), **custodians**(stop loss)
  + Compare positions an investor can take in an asset
  + Calculate and interpret the leverage ratio, the rate of return on a margin transaction, and the security price at which the investor would receive a margin call
  + **Payments-in-lieu**: payments of all dividends or interest that lender would've got from sellers of short sales; portion of short sale interest is **short rebate rate**.
  + 

Shares purchased 
Purchase price per share 
Annual dividend per share 
Initial margin requirement 
Call money rate 
Commission per share 
Stock price after one year 
$100 
$2.00 
40% 
4% 
SO .05 
$110 
Calculate (1) the leverage ratio and (2) the investor's return on the margin transaction (return on 
equity) if the stock is sold at the end of one year. 
Answer: 
1. The leverage ratio = 1 / 0.40 = 2.5. 
2. The total purchase price is 1,000 x $100 = $100,000. The investor must post initial margin of 
40% x $100,000 — $40,000. The remaining $60,000 is borrowed. The commission on the 
purchase is 1,000 x $0.05 = $50. Thus, the total initial equity investment is $40,050. 
At the end of one year, the stock value is 1,000 x $110 = $110,000, for a gain of $9,950. Dividends 
received are 1,000 x $2.00 = $2,000. Interest paid is $60,000 x 4% = $2,400. The commission on the 
sale is 1,000 x $0.05 = $50. 
The gain on the transaction in one year is $9,950 + $2,000 — $2,400 — $50 = $9,500. The return on the 
equity investment is $9,500 / $40,050 = 23.72%. The investor's net return is less than the asset total 

return (10% price appreciation + 2% dividend — 12%) multiplied by the leverage ratio (12% x 2.5 — 
30%) because of the loan interest and commissions. 
We can also solve for the return on the margin transaction with the cash flow functions on a financial 
calculator. The initial cash outflow is the $40,000 initial margin + $50 purchase commission — 
$40,050. The inflow after one year is the $110,000 stock value + $2,000 dividends — $60,000 margin 
repayment — $2,400 margin interest — $50 sale commission = $49,550. Using the cash flow functions: 
CFO = -40,050; CFI = 49,550; CPT IRR = 23.72%. 

* + Compare execution, validity, and clearing instructions
  + Compare market orders with limit orders
  + 
  + Day orders, good till canceled, immediate-or-cancel(fill-or-kill), good-on-close (market-on-close), good-on-open; **Stop loss orders** (stop-sell when market falling, stop-buy when market rising).
  + Define primary and secondary markets and explain how secondary markets support primary markets
  + Book building (book runner, accelerated book build): process of gathering **indications of interest**. **Underwritten** offering: IB guarantee that issue sold at negotiated price; **Best efforts** offering: IB=broker only, not obligated to buy unsold portion if undersubscribed issue.
  + Describe how securities, contracts, and currencies are traded in **quote-driven**(aka dealer, price-driven, over-the-counter/OTC market)**, order-driven** (order matching, trade pricing rules)**, and brokered markets**
  + Describe characteristics of a well-functioning financial system
  + Complete markets: savers, borrowers, hedgers, trades
  + Operational efficiency: low trading cost
  + Informational efficiency: prices reflect all fundamental information timely and quickly
  + Allocational efficiency: capital is directed to its highest productive valued use.
  + Describe objectives of market regulation

Which of the following is most similar to a short position in the underlying asset?

A. Buying a put. **B**. Writing a put. C. Buying a call.

* + Buying a put is most similar to a short position in the underlying asset because the put increases in value if the underlying asset value decreases. The writer of a put and the holder of a call have a long exposure to the underlying asset because their positions increase in value if the underlying asset value increases. (Module 44.2, LOS 44.e)

Securities:

* + Fixed Income securities:
    - Short term: <1 or 2yr. Eg. Commercial paper(firms), bills(govt), certificates of deposits(banks) are short-term securities.
    - Intermediate term: maturity in middle of short term and long term
    - Long term: maturity >20 to 30yr
  + Equity securities:
    - Common stock: variable dividend (last preferred in liquid and dividend payment)
    - Preferred stock: fixed dividend (second preferred in liquidity and dividend payment)
      * Cumulative: accrues for past unpaid dividends
      * Noncumulative: no accrue dividends that are undeclared and unpaid
      * **Participating**: allow additional dividend payments if profits exceed threshold
      * Nonparticipating: fixed dividends, no additional
      * Convertible: can convert into common shares, less risk in underlying
      * Callable: issues to buy back
      * Putable: investors to sell back
    - Warrants: similar to options, right to buy firm's equity shares at a fixed price prior to the warrant's expiration

Pool investment vehicles:

* + **Mutual funds**: investors can purchase shares from fund itself (open-end funds) or in the secondary market (closed-end funds)
  + **ETFs** and ETNs: trade like closed-end funds but have special provisions allowing conversion into individual portfolio securities, sometimes referred to as **depositories**, and their shares as depository receipts.
  + **Asset**-**backed securities**: represent a claim to a portion of a pool of mortgages, car loans, credit card debt etc.
  + **Hedge funds**: LLP, investors(limited partners), fund manager(general partner); mutual funds like structure for HNIs. Use leverage, hold long and short positions, use derivatives and invest in illiquid assets.

Currency: issued by government's central bank. Reserve currencies: held by governments and central banks worldwide, primarily includes Dollar & Euro.

Contracts:

* + Forward contract: agreement to buy or sell an asset in the future at a price specified in the contact at its inception.
  + Futures contract: similar to forward contracts except that standardized and exchange traded.
  + Option contracts: right and obligations to long or short in the future.
  + Swap contracts: agreement to exchange a series of payments on periodic settlement dates. **Currency swap**: loan in one currency for the loan of another currency; **Equity swap**: exchange of return on an equity index for interest payment on debt
  + Insurance contracts: used to hedge against unfavorable, unexpected events. Credit default swaps(**CDS**): form of insurance that makes a payment if an issuer defaults on its bonds.

Commodities: trade in spot, forward, futures market.

Real estate: real estate, equipment, machinery, REIT(high dividend payouts and tax advantage), master limited partnership(MLP), etc. Buy real estate directly provides income, tax benefits, diversification benefits, but require to do substantial due diligence before investing cuz of heterogenous nature.

Trailing P/E 
Forvvard 
Numerator 
Denominator 
Current price 
Past earnings 
Future earnings 
Justified forward P/E 
Justified by future flows 
(free cash flow, dividends) 
Future earnings 



Business risk consists of **operating** risk (company's cost structure and level of fixed cost) and **sales** risk (uncertainty to generate sales due to variability in price and volume of G&S)

# READING 37. SECURITY MARKET INDEXES:

* + Describe a security market index
  + Calculate and interpret the value, price return, and total return of an index
  + Describe the choices and issues in index construction and management
  + Compare the different weighting methods used in index construction
  + Calculate and analyze the value and return of an index given its weighting method
  + Describe rebalancing and reconstitution of an index
  + Describe uses of security market indexes
  + Describe types of equity indexes

Broad market 
index 
Usually contains 
a large 
component of 
the market's 
total value 
Multi-market 
index 
It is used to 
measure the 
equity returns of 
a geographic 
location 
Contains the 
indexes of 
several countries 
es of equity indices 
Multi-market index 
with fundamental 
weighting 
Uses market 
capitalization 
Sector index 
weighting for 
securities Within a 
country's market 
but weight the 
countries within 
the global index 
by a fundamental 
factor 
Measures returns 
for a sector (Eg. 
pharmaceuticals) 
Style index 
Measures value or 
growth strategies 
Higher constituent 
turnover than 
broad market 
indexes 

Categories of equity indexes 
Most securities of an entire equity 
Broad market 
market 
• Blends indexes from different countries 
Multimarket 
Proxy for regional or global investing 
• Based on same sector (eg, finance, 
health care) 
• Can be different sizes (eg; large cap, 
small cap) and different styles (ie; value 
vs. growth) 
• Can be national, regional; or global 
• Can be different sectors 
• Based on same Size (eg, large cap) or 
Style 
style (ie, value vs. grovhh) 
• Can be national, regional; or global 
Russell 3000, Wilshire 5000 
(both cover LIS equities) 
DJIA and FTSE 100 
European energy index 
Asian large-cap index 

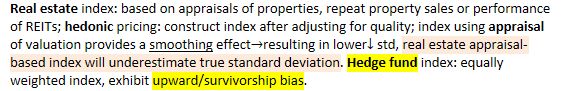
* + **Multimarket**: measure the equity returns of a geographic location, eg. From countries deemed emerging markets.

**Multi-market index w fundamental weighting**: use market capitalization for securities within a country's market but weight the country by a fundamental factor.

**Style** index: value index, growth index.

* + Describe types of fixed-income indexes

LOS i 
Types of fixed-income indices 
+ Fixed income indexes can be classified by issuer, collateral, coupon, maturity, default 
risk and inflation protection 
Fixed income security universe is much broader than the equity universe 
+ Since fixed income securities mature, they must be replaced in fixed income indexes. As 
a result, fixed income indexes have a high turnover 
+ Fixed income securities are primarily traded by dealers, so index providers have to 
depend on dealers for recent prices 

* + Issuer: corporations, government, sovereign, etc. collateral: secured or unsecured. Default risk: investment rated.
  + Describe indexes representing alternative investments
  + **Commodity** index: based on commodity futures not spot prices, to gain exposure to underlying commodities in each index; 3sources of return for **commodity futures** contracts: **roll yield**(return of futures price converge with spot price as contract approaches expiration; forward curve upward sloping[futures>spot] is **contango**, roll yield is negative for trader with long futures; downward sloping[futures<spot] is **backwardation**), collateral yield, change in spot price. Index's return (measured by futures price Δ) differ from commodity's return (measured by spot price Δ).
  + 
  + Appraisal index:
  + Compare types of security market indexes

# READING 38. MARKET EFFICIENCY

* 1. Describe market efficiency and related concepts, including their importance to investment practitioners
  2. Distinguish between market value and intrinsic value
  3. Explain factors that affect a market’s efficiency
  4. Contrast weak-form, semi-strong-form, and strong-form market efficiency
  5. Explain the implications of each form of market efficiency for fundamental analysis, technical analysis, and the choice between active and passive portfolio management
  6. Describe market anomalies
  7. Describe behavioral finance and its potential relevance to understanding market anomalies

# READING 39. OVERVIEW OF EQUTIY SECURITIES

* 1. Describe characteristics of types of equity securities
  2. Describe differences in voting rights and other ownership characteristics among different equity classes
  3. Distinguish between public and private equity securities
  4. Describe methods for investing in non-domestic equity securities
  5. Compare the risk and return characteristics of different types of equity securities
  6. Explain the role of equity securities in the financing of a company’s assets
  7. Distinguish between the market value and book value of equity securities
  8. Compare a company’s cost of equity, its (accounting) return on equity, and investors’ required rates of return

# READING 40. INDUSTRY AND COMPANY ANALYSIS

* 1. Explain uses of industry analysis and the relation of industry analysis to company analysis
  2. Compare methods by which companies can be grouped, current industry classification systems, and classify a company, given a description of its activities and the classification system
  3. Explain the factors that affect the sensitivity of a company to the business cycle and the uses and limitations of industry and company descriptors such as “growth,” “defensive,” and “cyclical”
  4. Explain how a company’s industry classification can be used to identify a potential “peer group” for equity valuation
  5. Describe the elements that need to be covered in a thorough industry analysis
  6. Describe the principles of strategic analysis of an industry
  7. Explain the effects of barriers to entry, industry concentration, industry capacity, and market share stability on pricing power and price competition
  8. Describe industry life cycle models, classify an industry as to life cycle stage, and describe limitations of the life-cycle concept in forecasting industry performance
  9. Compare characteristics of representative industries from the various economic sectors
  10. Describe macroeconomic, technological, demographic, governmental, and social influences on industry growth, profitability, and risk
  11. Describe the elements that should be covered in a thorough company analysis

# READING 41. EQUITY VALUATION: CONCEPTS AND BASIC TOOLS

* 1. Evaluate whether a security, given its current market price and a value estimate, is overvalued, fairly valued, or undervalued by the market
  2. Describe major categories of equity valuation models
  3. Describe regular cash dividends, extra dividends, stock dividends, stock splits, reverse stock splits, and share repurchases
  4. Describe dividend payment chronology
  5. Explain the rationale for using present value models to value equity and describe the dividend discount and free-cash-flow-to-equity models
  6. Calculate the intrinsic value of a non-callable, non-convertible preferred stock
  7. Calculate and interpret the intrinsic value of an equity security based on the Gordon (constant) growth dividend discount model or a two-stage dividend discount model, as appropriate
  8. Identify characteristics of companies for which the constant growth or a multistage dividend discount model is appropriate
  9. Explain the rationale for using price multiples to value equity, how the price to earnings multiple relates to fundamentals, and the use of multiples based on comparable
  10. Calculate and interpret the following multiples: price to earnings, price to an estimate of operating cash flow, price to sales, and price to book value
  11. Describe enterprise value multiples and their use in estimating equity value
  12. Describe asset-based valuation models and their use in estimating equity value
  13. Explain advantages and disadvantages of each category of valuation model

initial margin requirement of 50% equity has a 2-to-1 leverage ratio, so that a 10% increase (decrease) in price of asset results in a 20% increase (decrease) in investor’s equity amount

Check Q5



