

LM01 · EQUITY INVESTMENTS · CFA LEVEL I

Market Organization and Structure

How capital, risk, and information flow through the financial system

What This Reading Covers

This learning module builds the vocabulary and mechanics for every later Equity reading. You will learn **what** markets trade (securities, contracts, commodities, currencies), **who** participates (intermediaries, investors), **how** orders are structured and executed, and **why** regulation matters.

Learning Outcome Statements

- LOS a** Explain the main functions of the financial system
- LOS b** Describe classifications of assets and markets
- LOS c** Describe major types of securities, currencies, contracts, commodities, and real assets traded in organized markets
- LOS d** Describe types of financial intermediaries and the services they provide
- LOS e** Compare positions an investor can take in an asset
- LOS f** Calculate and interpret the leverage ratio, return on a margin transaction, and the margin-call price
- LOS g** Compare execution, validity, and clearing instructions
- LOS h** Compare market orders with limit orders
- LOS i** Define primary and secondary markets and explain how secondary markets support primary markets
- LOS j** Describe how securities, contracts, and currencies are traded in quote-driven, order-driven, and brokered markets
- LOS k** Describe characteristics of a well-functioning financial system
- LOS l** Describe objectives of market regulation

Exam Tip: LM01 is largely vocabulary and classifications — but the **margin-call price**, **return on a margin transaction**, and **leverage ratio** calculations in LOS f are frequently tested and must be worked precisely.

LOS A · MAIN FUNCTIONS OF THE FINANCIAL SYSTEM

The Three Main Functions

THE FINANCIAL SYSTEM AT A GLANCE

1. FACILITATE TRANSFERS

Capital: savers ↔ borrowers
 Risk: hedgers ↔ speculators

Saving · Borrowing
 Issue equity · Manage risk
 Exchange assets (spot)
 Information-based trading

2. PRICE DISCOVERY

Determine equilibrium
 rates of return ($S = I$)

Supply > Demand → price ↓
 Supply < Demand → price ↑

Each market has its own
 supply/demand dynamics

3. EFFICIENT ALLOCATION OF CAPITAL

Capital seeks the best
 risk-adjusted return

Requires: speedy trades,
 low transaction costs,
 information access, regulation

Function 1 — Facilitate Six Transfer Purposes

Saving — move money to the future; earn return matched to investment risk. Sources: individuals, businesses, governments.

Borrowing — move money to the present; requires lenders who want adequate collateral and return. Sources: individuals, businesses, governments.

Raising equity capital — firms issue shares, giving investors a financial claim on assets and future cash flows (indirect investing).

Managing risks — hedging and insurance transfer risk to parties willing to bear it (interest rates, currencies, default, commodity prices).

Exchanging assets — e.g., spot FX trades where one currency is exchanged for another.

Information-based trading — speculators seek returns in *excess* of the required return by identifying mispriced securities.

Investor vs. Speculator

Investors expect to earn a return for bearing risk. **Speculators** expect to earn a return *in excess* of the required rate of return.

Function 2 — Price Discovery (Equilibrium Rates)

Capital has a cost — the rate of return. Markets clear when the supply of savings equals the demand for borrowing ($S = I$), producing the equilibrium interest rate.

Supply > Demand → price (rate) falls

Supply < Demand → price (rate) rises

Caution: There is not one market with one interest rate. Each market has its own supply/demand dynamics and its own equilibrium rate (a liquidity driver).

Function 3 — Efficient Allocation of Capital

Capital is allocated to its most productive uses. This requires:

- 1 Speedy transactions
- 2 Low transaction costs
- 3 Access to information
- 4 Regulation

LOS B · CLASSIFICATIONS

Classifying Assets and Markets

Assets

FINANCIAL ASSETS

Claims on real assets and the future income those assets generate. Includes **securities** (stocks and bonds) and **currencies**.

PHYSICAL / REAL ASSETS

Tangible assets such as real estate, equipment, commodities, and other physical items — often held by operating firms as factors of production.

Markets — Four Classification Axes

BASIS	CATEGORY A	CATEGORY B
Timing of delivery	Spot market — immediate delivery	Forward / Futures market — delivery on an agreed future date
Who is the seller	Primary market — issuer sells newly issued securities	Secondary market — investors sell to other investors
Maturity of instruments	Money market — debt with maturity ≤ 1 year	Capital market — longer-term debt plus equities (no set maturity)
Type of investment	Traditional — publicly traded debt and equity, and funds	Alternative — hedge funds, private equity, commodities, real estate, securitized debt

Public vs. Private Securities

Public securities trade on exchanges (or through dealers) and are subject to regulatory oversight. **Private** securities are not publicly traded, are often offered only to qualified investors, are often illiquid, and are generally not subject to regulation.

Exam Tip: "Traditional" = publicly traded debt and equity (plus funds on these). Everything else — hedge funds, PE, real estate, commodities, securitized debt — is "alternative."

QUIZ 1 · CHECKPOINT

Test Your Understanding: Functions & Classifications

Q1. Which of the following is *not* one of the three main functions of the financial system?

Q2. A speculator is best distinguished from an investor because the speculator:

Q3. A 180-day commercial paper issue trades in the:

Q4. An equilibrium interest rate in a market is best described as the rate at which:

LOS C · MAJOR TYPES OF SECURITIES

Securities Traded in Organized Markets

THREE CATEGORIES OF SECURITIES

FIXED INCOME (DEBT)

Bonds (long-term)
 Notes (intermediate)
 Bills · CDs · Repos (money market)
 Bank borrowings
 Convertible debt

*Promise to repay principal
 + interest on a schedule*

EQUITIES

Common stock
 Voting · residual claim
 Preferred stock
 Scheduled dividends first
 Warrants
 Right to buy at exercise price

Ownership claims

POOLED INVESTMENTS

Mutual funds
 Open-end · closed-end
 ETFs / ETNs
 Asset-backed securities
 Hedge funds

*Shares / units = shared
 ownership of underlying*

Fixed-Income Details

Debt securities are promises to repay borrowed funds (principal + interest). They may be collateralized, giving investors a claim on specific physical assets.

Bonds	Long-term debts
Notes	Intermediate-term debts
Bills · CDs · Repos	Short-term money-market instruments
Bank borrowings	Short- to long-term revolving credit lines and loans
Convertible debt	Debt exchangeable for a specified number of equity shares of the issuer

Equity Details

Common Stock

Voting rights · entitled to
discretionary dividends · **last**
(residual) claim on assets

Preferred Stock

Higher priority than common ·
 entitled to *fixed scheduled*
 dividends (stated as a yield), paid
 before common

Warrants

Right to purchase stock at a **pre-**
specified price before a pre-
specified date (similar to a call
 option)

Pooled Investments

Mutual funds

Open-end: investors buy/redeem shares from the fund itself. **Closed-end:** shares purchased from other investors in the secondary market.

ETFs / ETNs

Trade like closed-end funds but with special in-kind creation/redemption provisions.

Asset-backed securities

Claim on cash flows from a pool of assets — mortgages, car loans, credit card receivables.

Hedge funds

Organized as limited partnerships; typically restricted to wealthy / sophisticated investors; often use leverage.

LOS C · CONTRACTS, CURRENCIES, COMMODITIES, REAL ASSETS

Contracts, Currencies, Commodities & Real Assets

Contracts (Derivatives)

A contract is an agreement between two parties to do something in the future. Its value depends on the value of an underlying (security, index, interest rate, commodity). Contracts may be **cash-settled** or require **physical delivery**.

TYPE	KEY FEATURES
Forward	OTC, <i>customizable</i> . Both buyer and seller are obligated — buyer to take delivery at a specific price on a certain date; seller to deliver.
Futures	A <i>standardized</i> , exchange-traded forward contract. Standardization of amount, characteristics, and delivery time gives higher liquidity.
Swaps	Agreement to exchange a series of cash flows at periodic dates over a period. Types: interest-rate (fixed for floating), currency , equity (equity return for interest).
Options	Call = right to buy; Put = right to sell. Buyers have a right; sellers (writers) have an obligation. Parameters: underlying, strike price, expiration date.
Insurance	Pays a cash amount if a specified future event occurs.
Credit default swaps	A form of insurance: makes a payment to the holder if the referenced borrower defaults on its bonds.

Options — Rights vs. Obligations

Buyers of options have only a **right**. Sellers (writers) have an **obligation** if the buyer exercises. A buyer is "long" the option; a seller is "short" the option.

Currencies

Monies issued by national monetary authorities (central banks). They trade in the spot, forward, and futures markets — collectively the **foreign-exchange (Forex) market** — 24 hours a day. Reserve currencies (held by governments and central banks worldwide) include the **dollar and euro**, with the British pound, Japanese yen, and Swiss franc as secondary reserve currencies.

Currencies trade in pairs. Buying USD/CAD means you are *long* USD and *short* CAD.

Commodities

Commodities include precious and industrial metals, energy, agricultural products, and carbon credits. They trade in spot, forward, and futures markets.

Spot — buyers/sellers of the physical product

Forwards/Futures — hedging/speculating; usually closed out prior to delivery

Real Assets

Tangible assets — **property, factories, equipment** — used as factors of production. Direct investing means owning the asset itself. Real assets are generally **illiquid** with **high management costs**.

LOS D · FINANCIAL INTERMEDIARIES

Financial Intermediaries and Services

Intermediaries facilitate the matching of providers and users of capital, and structure products and services to satisfy that function.

Brokers, Exchanges, ATS, and Dealers

INTERMEDIARY	ROLE
Brokers	Fulfill orders for clients by finding counterparties. Do not trade with their clients directly. Especially critical for large-block trades.
Block brokers	Specialize in placing large trade orders that could impact security prices if not handled carefully.
Investment banks	Help firms raise capital (common/preferred stock, bonds) and provide advice on mergers, acquisitions, and other corporate actions.
Exchanges	Provide an auction platform where traders meet; regulate members; must print the best bid and ask.
Alternative trading systems (ATS)	Serve the same trading function as exchanges but have no regulatory authority over members. Also called ECNs or multilateral trading facilities. ATS that do not reveal client orders are dark pools — typically used by institutional investors for large-block trades.
Dealers	Trade directly with clients by taking the opposite side of trades. Hold inventory · become contract counterparties · create liquidity · earn the bid-ask spread. Some also act as brokers (broker-dealers — watch for conflicts of interest). Primary dealers buy and sell with the central bank.

Other Intermediaries

SECURITIZERS

Buy assets, pool them inside a **special purpose entity (SPE/SPV)**, and sell securities (interests) against the pool. Assets often securitized: mortgages, car loans, student loans, credit card

DEPOSITORY INSTITUTIONS

Commercial banks, savings & loans, credit unions — take deposits (pay interest) and lend to borrowers (charge interest).

receivables, bank loans. Benefits: economies of scale, liquidity, risk reduction.

INSURANCE COMPANIES

Create and sell contracts that protect buyers from risk (auto, fire, theft, life). Connect policy holders with investors, creditors, and reinsurers (e.g., CAT bonds).

ARBITRAGEURS

Trade on mispricing — buy and sell mispriced securities for (near) riskless profit. Provide added liquidity by removing price inefficiencies.

CLEARINGHOUSES

Arrange for final settlement between buyers and sellers, lowering counterparty risk. Act as counterparty for futures contracts.

DEPOSITORIES / CUSTODIANS

Hold securities on behalf of clients; protect against loss from fraud, oversight, or natural disasters.

Three Key Insurance Risks

Moral hazard — insured entities take more risk because they are protected. **Adverse selection** — the most at-risk entities are the most likely to buy coverage. **Fraud** — entities claim fictitious losses or purposely cause damage.

LOS E · INVESTOR POSITIONS

Long, Short, and Leveraged Positions

LONG POSITION

Created when a trader owns an asset, or has a right/obligation under a contract to purchase an asset.

Benefits from increases in the price of the security.

SHORT POSITION

Created when a trader borrows an asset and sells it, with an obligation to replace it in the future — or has written a contract.

Benefits from decreases in the price of the security.

Positions Across Instrument Types

INSTRUMENT	LONG POSITION	SHORT POSITION
Forwards / Futures	Obligated to <i>take</i> delivery · benefits from price increase	Obligated to <i>deliver</i> · benefits from price decrease
Options — Calls	Long a call (right to buy)	Short a call (obligation to sell if exercised)
Options — Puts	Long a put (right to sell)	Short a put (obligation to buy if exercised)
Swaps (fix/float)	The party that benefits from a rise in interest rates is considered "long."	
Currency pairs	Currencies trade in pairs. Buying USD/CAD at 1.3250 means <i>long</i> USD and <i>short</i> CAD.	

Mechanics of a Short Sale

- 1 Broker arranges a **borrow** of the securities and lends them to the seller, who sells them.
- 2 Proceeds of the short sale are kept with the broker as **collateral**; the deposit earns the **short rebate rate**.
- 3 Short seller must pay any **interest or dividends** the security generates to the lender — these are **payments-in-lieu**.
- 4 If the borrow cannot be maintained, the seller faces a **forced buy-in**.
- 5 To close the short, the seller initiates a **buy-to-cover** (or buy-to-close) order — "covering the short position."

Hedgers

Hedgers take positions *contrary* to their natural risk exposure to eliminate risk. Example: a maize farmer sells (takes a short position in) maize futures to offset the risk that maize prices fall before harvest.

Leveraged Positions

A **leveraged position** uses borrowed funds (a **margin loan**) from a broker to buy securities. The interest rate on the margin loan is the **call money rate**. The trader's own money put into the position is the **initial margin requirement**.

Minimum margin requirements may be set by regulation, the exchange, or the clearinghouse. **Financial leverage magnifies both gains and losses.**

LOS F · LEVERAGE RATIO, RETURN ON MARGIN, MARGIN CALL PRICE

Margin Transaction Calculations

Leverage Ratio

The leverage ratio measures the amount of borrowed funds relative to equity in the transaction.

LEVERAGE RATIO

$$\text{Leverage Ratio} = \frac{\text{Value of Position}}{\text{Value of Equity Investment}} = \frac{1}{\text{Initial Margin}}$$

Example: with a 50% initial margin, leverage ratio = $1/0.50 = 2$. With a 25% initial margin (max 75% borrowing), leverage ratio = $1/0.25 = 4$.

Margin Call Price — Formula

If the share price drops enough, the equity percentage in the account falls below the **maintenance margin**. At that price, a margin call is triggered — the investor must add cash/securities back up to the initial margin or face **forced liquidation**.

MARGIN CALL PRICE

$$P_{MC} = P_0 \cdot \frac{1 - IM}{1 - MM}$$

P_{MC} price that triggers margin call

P_0 initial purchase price per share

IM initial margin (% equity put up)

MM maintenance margin (% floor)

EXAMPLE 1 Margin Call Price

GIVEN

Share price $P_0 = €200$ · Initial margin = 50% · Maintenance margin = 30%

FIND

The share price that triggers a margin call.

SOLUTION→ **SOLUTION****1**

Apply the formula.

$$\text{Margin Call} = 200 \times (1 - 0.50) / (1 - 0.30)$$

2

Evaluate.

$$= 200 \times 0.50 / 0.70 = 100 / 0.70 = \text{€}142.86$$

✓ **ANSWER****€142.86**

A margin call is triggered at prices below €142.86.

Return on a Margin Transaction — Worked Example

To calculate the rate of return on a margin transaction, divide the gain or loss on the position by the equity (margin) invested.

EXAMPLE 2**Return on a Leveraged Long Position (1 year)**☰ **GIVEN**

Shares purchased	500
Price at start of year	€200
Dividend for the year	€5 per share

Commission per share	€0.10
Price at end of year	€220
Initial margin requirement	50%
Call money rate	3%

? FIND

The leverage ratio and the 1-year rate of return.

SOLUTION**→ SOLUTION**

1 Leverage ratio.

$$1 / 0.50 = 2$$

2 Purchase amount.

$$500 \times 200 = \text{€}100,000$$

3 Initial equity & borrowed amount.

$$\text{Initial margin} = 100,000 \times 0.50 = \text{€}50,000 \quad | \quad \text{Borrowed} = \text{€}50,000$$

4 Cash flows during the year.

$$\begin{aligned} \text{Purchase commission} &= 0.10 \times 500 = \text{€}50 \\ \text{Dividend earned} &= 5 \times 500 = \text{€}2,500 \\ \text{Interest paid} &= 3\% \times 50,000 = \text{€}1,500 \\ \text{Sale proceeds} &= 500 \times 220 = \text{€}110,000 \\ \text{Selling commission} &= 0.10 \times 500 = \text{€}50 \end{aligned}$$

5 Total gain.

$$110,000 - 100,000 + 2,500 - 1,500 - 50 - 50 = \text{€}10,900$$

6

Initial equity investment.

$$50,000 + 50 = \text{€}50,050$$

7

Return.

$$10,900 / 50,050 = 21.78\%$$

✓ ANSWER

Leverage ratio

2

1-year return on margin

21.78%

◆ TAKEAWAY

Leverage magnifies the return. The underlying stock rose 10% (200 → 220); after dividends, commissions, and interest the margin return is ~21.78% — roughly double (the leverage ratio).

Exam Tip: In margin-call questions, note whether the investor is **long** (call triggered on price *decline*) or **short** (call triggered on price *increase*). For the return calculation, always divide the *total dollar gain/loss* by the *initial equity* (not the total position value).

QUIZ 2 · CHECKPOINT

Test Your Understanding: Securities, Positions & Margin

Q5. A warrant is most similar to a:

Q6. Which intermediary is *most likely* to take the opposite side of a client's trade and hold inventory?

Q7. A stock is purchased at \$60 with an initial margin of 50% and a maintenance margin of 25%. The margin call price is *closest to*:

Q8. A short seller of a stock is most likely required to:

LOS G · EXECUTION, VALIDITY & CLEARING INSTRUCTIONS

Instructions That Attach to Every Order

Every order must specify the security, size, and buy/sell direction. In addition, traders attach three categories of instructions:

EXECUTION

How the order should be filled.

VALIDITY

When the order may be filled.

CLEARING

How final settlement should be arranged.

Execution Instructions

TYPE	BEHAVIOR
Market order	Fill <i>immediately</i> at the best available price. Guaranteed execution, no guaranteed price.
Limit order	Fill at a specified price or better. Guaranteed price, no guaranteed execution.
All-or-nothing (AON)	Execute only if the entire quantity can be traded.
Hidden order	Known only to the broker or exchange until executed.
Iceberg order	Large hidden order with a small visible "display size." The visible portion executes first to gauge liquidity, then the rest.

Validity Instructions

TYPE	BEHAVIOR
Day order	Expires at the end of the trading day (default).
Good-till-cancelled (GTC)	Remains open until executed or cancelled (maximum typically six months).
Immediate-or-Cancel (Fill-or-Kill)	Must be filled immediately or cancelled.

Good-on-close (market-on-close)	Filled at the close of trading. Often used by mutual funds (NAVs priced on close).
Stop (stop-loss) orders	Execute only if a trigger price is reached. Stop-sell (long position): sell if price $\leq$ stop. Buy-stop (short position): buy if price $\geq$ stop.

Stop Orders — Examples from the Source

Stop-loss (long position)

Bought at 10, *stop — loss* at 9.50. If price falls to or below 9.50, a sell order is triggered.

Buy-stop (short position)

Sold at 10, *buy — stop* at 10.50. If price rises to or above 10.50, a buy-to-cover order is triggered.

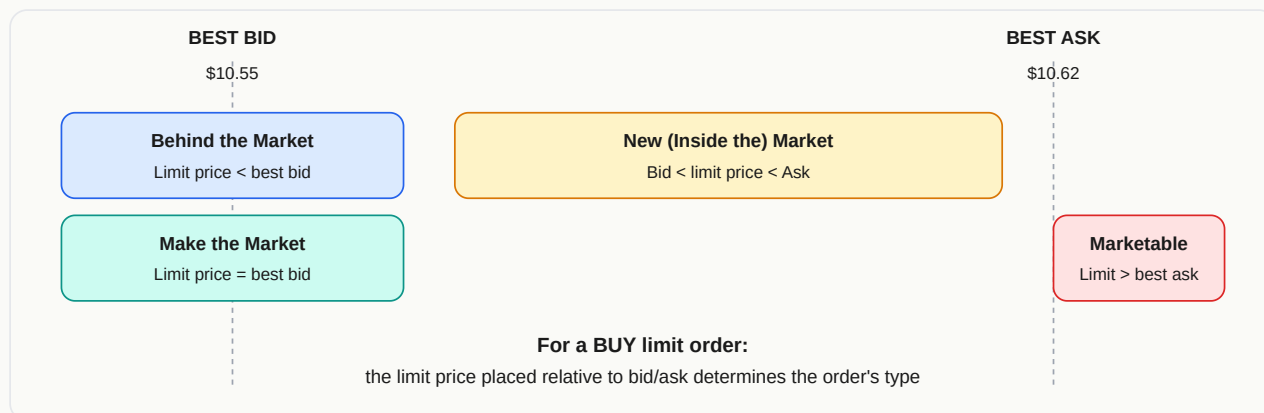
Clearing Instructions

Specify how final settlement will be arranged (which broker or clearer is responsible). Most orders clear through the trader's usual broker — explicit clearing instructions are especially relevant when a trader uses more than one broker. A separate clearing field indicates whether a sale is a **long sale** or a **short sale**.

LOS H · MARKET ORDERS VS. LIMIT ORDERS

Market Orders vs. Limit Orders

PLACING A LIMIT BUY ORDER (VS. THE BEST BID / BEST ASK)



	MARKET ORDER	LIMIT ORDER
Execution	At best available market price	Minimum on sell · maximum on buy
Advantage	Quick execution when prices are volatile	Avoids slippage — executes at pre-set price or better
Disadvantage	Trade-price uncertainty; unfavorable fills possible	May be partially filled or unfilled in fast markets
Trade-off	Sacrifices price certainty for liquidity	Sacrifices certainty of execution for price

Types of Limit Orders (relative to best bid/ask)

Marketable	Buy with limit price <i>above</i> best ask (or sell limit <i>below</i> best bid). Executes immediately — at least partially.
New/Inside the market	Limit price is between best bid and best ask. A new best quote prints.
Make the market	Limit price equals best bid (for buys) or best ask (for sells). Adds to standing quote.
Behind the market	Limit price worse than best quote on the same side. All earlier-placed orders at that price must execute first.
Far from the market	A behind-the-market order placed <i>well</i> below the best bid (or well above the best ask). Executes only if price moves substantially.

Exam Tip: Memorize: "Market order → guaranteed execution, no guaranteed price. Limit order → guaranteed price, no guaranteed execution."

LOS I · PRIMARY AND SECONDARY MARKETS

Primary & Secondary Markets

PRIMARY MARKET

Issuer → Investor. The sale of an issuer's newly issued securities.

- **IPO** — first time issuing publicly
- **Seasoned/secondary offering** — additional units of already-public securities

SECONDARY MARKET

Investor → Investor. Previously issued securities change hands.

- Companies do not directly gain capital here
- Provides liquidity; **sets the price for secondary offerings**

How secondary markets support primary markets: Liquid, active secondary markets lower the cost of raising capital for issuers. Investors are willing to pay more in primary offerings when they know they can readily sell in a liquid secondary market. Secondary trading also establishes the price reference used for seasoned/secondary offerings.

Primary-Market Methods — Public Offerings

Firms seeking retail/individual investors use an **investment bank** which lines up subscribers (*book building*) and disseminates firm information. Two alternatives:

Underwritten offer ("bought deal")

The investment bank buys the entire issue at a negotiated offering price and resells on the IPO, earning the spread. Banks may also agree to buy any *unsold portion* at a pre-negotiated price — creating a conflict of interest (bank prefers a lower offer price).

Best-efforts offer

The bank acts as a broker only, on commission, with no obligation to purchase unsold shares.

Primary-Market Methods — Private Placements

Large blocks of securities sold directly to **qualified investors**. Not offered to the public. Costs and disclosures are much lower than for public offerings.

LOS J · QUOTE-DRIVEN, ORDER-DRIVEN, BROKERED MARKETS

How Trades Are Arranged & Executed

When Can Trades Happen?

CALL MARKETS

Trades occur only at **particular times**. All bids and asks are balanced to determine **one price** (quantity bid = quantity offered); all trades execute at that price. Very liquid in session, illiquid otherwise. Many continuous markets use this method to set the *opening* or *closing* price.

CONTINUOUS MARKETS

Trades can be arranged and executed any time the market is open. Prices are set either by an **auction process** or by **dealer bid-ask quotes**.

Three Market-Structure Types (based on HOW trades happen)

1. QUOTE-DRIVEN MARKETS

Customers trade with **dealers** who "make a market" in specific securities — they are willing to buy and sell from their own inventory. Also called **OTC / dealer / price-driven** markets. Most securities other than stocks trade here (bonds, spot commodities, currencies). Dealers earn the bid-ask spread.

2. ORDER-DRIVEN MARKETS (PURE AUCTION)

Exchanges where buyers and sellers submit bids and offers. Since traders are usually anonymous, **trading rules** determine how orders fill.

Order-Matching Rules (precedence)

Price Best bid / best ask takes precedence

Display Displayed orders take precedence over hidden at the same price

Time First-placed takes precedence over later orders with the same price and display properties

Trade-Pricing Rules

Uniform pricing	The same price is used for all trades in that session (call markets)
Discriminatory pricing	The limit price of the order/quote that arrived first determines the trade price — different trades can print at different prices
Derivative pricing	Price uses the midpoint of the bid-ask from another market (e.g., a crossing network)

3. BROKERED MARKETS

Brokers arrange trades among their clients. Used for **very thin markets** or **unique items** — large blocks of stock, real estate, artwork. Dealers typically do not carry inventory in these assets, and there are too few trades for an order-driven market to form.

Information Transparency

Pre-trade transparent

Publishes real-time data about quotes and orders *before* trades occur. All exchanges are pre-trade transparent.

Post-trade transparent

Publishes data about trade prices *after* trades occur (most dealer markets). Lower transparency is associated with **wider spreads** and **higher transaction costs**.

LOS K & L · WELL-FUNCTIONING SYSTEM & MARKET REGULATION

Well-Functioning Financial System & Regulatory Objectives

Characteristics of a Well-Functioning Financial System

A well-functioning system helps **savers, borrowers, hedgers**, and those who need to **exchange assets (spot)**. Four core characteristics:

1. COMPLETE MARKETS

All assets and contracts exist to satisfy the four needs: savers can save at fair rates, creditworthy borrowers can obtain funds, hedgers can manage risks, and traders can obtain currencies/commodities/other assets they need.

2. OPERATIONAL EFFICIENCY

Low trading costs — commissions, bid-ask spreads, and price impacts are small. Requires liquidity and supportive intermediaries.

3. INFORMATIONAL EFFICIENCY

Prices reflect all available information and respond in a timely way to changes in fundamental values. Supported by **timely and accurate disclosure**.

4. ALLOCATIONAL EFFICIENCY

Capital flows to its most productive uses. Operationally + informationally efficient markets tend to produce allocational efficiency.

Intermediaries Required for a Well-Functioning System

Match buyers and sellers (exchanges, brokerages, ATS) · provide liquidity on demand (market makers) · create products to match buyers and sellers (e.g., ABS) · accept deposits and make loans · provide insurance · provide advisory services · organize clearinghouses · safeguard assets (custodial / depository services).

The Efficiency Chain



Objectives of Market Regulation

Regulation supports **confidence** in the financial system. The key objectives are:

- 1 **Control fraud** by, or deception of, market participants.
- 2 **Control agency problems** — set minimum standards of competence for agents; define and enforce minimum standards of practice.
- 3 **Promote fairness** (mutually beneficial standards for market participants).
- 4 **Set standards for financial reporting** — fair to both users and providers of information.
- 5 **Set minimum capital requirements** for financial firms — reduces costs/disruption of failures and prevents undercapitalized firms from exploiting investors.
- 6 Ensure **insurance and pension funds** have sufficient capital to honour long-term commitments.

Exam Tip: The ordering **Operational** → **Informational** → **Allocational** is a common test trap. Memorize the chain: low trading costs enable prices to reflect information, which enables capital to flow to its most productive uses.

QUIZ 3 · CHECKPOINT

Test Your Understanding: Orders, Markets & Regulation

Q9. A trader submits a buy limit order at 10.55 *when the best bid is* 10.55 and best ask is \$10.62. This order is *best* described as:

Q10. Which statement about secondary markets is *most accurate*?

Q11. A real-estate transaction for a unique building is *most likely* to take place in a:

Q12. Which of the following is *least likely* an objective of market regulation?

MODULE COMPLETE

Your Scorecard

0 / 12

LM01 Key Takeaways — Exam-Ready Cheat Sheet

Core System

- 1 **Three functions of the financial system:** (1) facilitate transfers of capital/risk, (2) price discovery (equilibrium rates, $S = I$), (3) efficient allocation of capital.
- 2 **Six transfer purposes:** saving, borrowing, raising equity, managing risks, exchanging assets (spot), information-based trading.
- 3 **Investor vs speculator:** investor earns a return for bearing risk; speculator targets *excess* returns.

Assets, Markets & Securities

- 4 **Market classifications:** delivery (spot/forward), seller (primary/secondary), maturity (money $\leq 1y$ / capital), type (traditional/alternative).
- 5 **Three security families:** fixed income (debt), equities (common, preferred, warrants), pooled investments (mutual funds, ETFs, ABS, hedge funds).
- 6 **Contracts:** forwards (OTC, custom), futures (standardized, exchange), swaps, options, insurance, CDS.

Positions & Margin

- 7 **Long** benefits from price increases; **short** benefits from decreases. Short sellers pay *payments-in-lieu* and earn the *short rebate rate* on proceeds.

- 8** **Leverage ratio** = $1 / \text{initial margin}$. **Margin-call price** = $P_0(1 - \text{IM}) / (1 - \text{MM})$. **Return on margin** = $\text{total gain} / \text{initial equity}$.

Orders & Market Structure

- 9** **Market order** = execution certainty, price uncertainty. **Limit order** = price certainty, execution uncertainty.
- 10** **Three market types**: quote-driven (dealers; most non-stock securities), order-driven (exchanges with trading rules), brokered (unique/illiquid items).
- 11** **Order-matching precedence**: price → display → time.

Well-Functioning System & Regulation

- 12** **Efficiency chain**: operational (low trading costs) → informational (prices reflect info) → allocational (capital to best uses). A well-functioning system is complete, operationally efficient, and informationally efficient.
- 13** **Regulation objectives**: control fraud · control agency problems · promote fairness · set reporting standards · set minimum capital · ensure long-term liabilities are funded.

Last-Minute Exam Checklist

Leverage ratio: $1 / \text{IM}$ · **Margin call (long)**: $P_0(1 - \text{IM}) / (1 - \text{MM})$

Market order: guaranteed execution, no guaranteed price

Limit order: guaranteed price, no guaranteed execution

Quote-driven: dealers (OTC); **Order-driven**: exchanges (auction); **Brokered**: unique/illiquid

Primary: issuer → investor; **Secondary**: investor → investor (supports primary)

Efficiency: Operational → Informational → Allocational