CFA Institute®
Investment Foundations

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Module 5: INDUSTRY STRUCTURE

Chapter 15: The Functioning of Financial Markets

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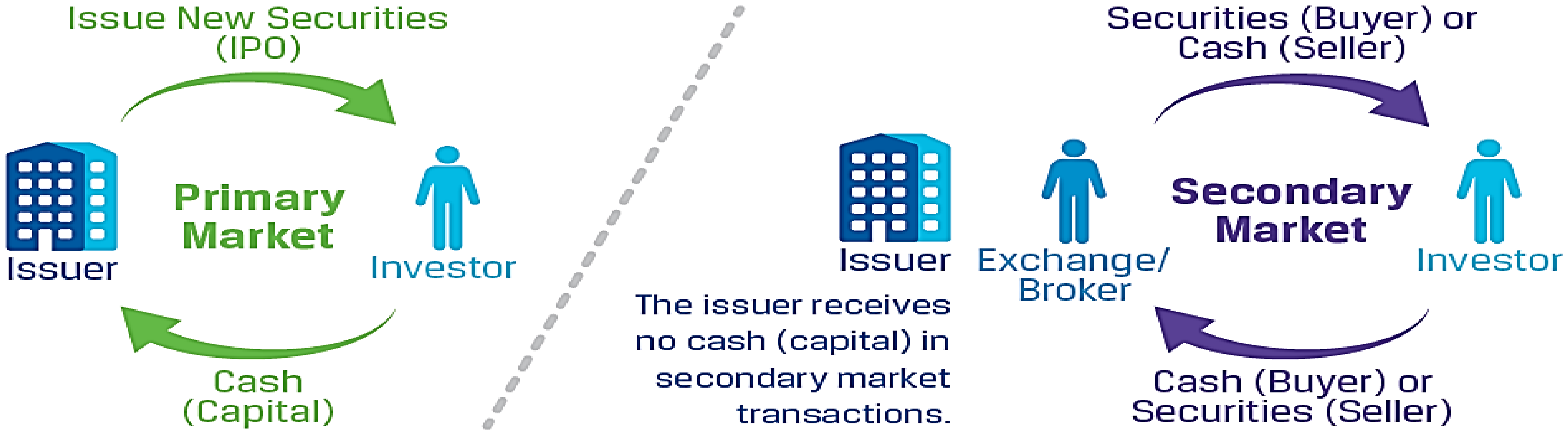
Faculty Bio

Module	Topic	Weight	LOS	Exam Qs	Hours to Study	Module Practice Qs	Chapter Practice Qs
Module 1	**Industry overview**	5%	7	6	5	28	28
Chapter 1	The Investment Industry: A Top-Down View						
Module 2	**Ethics and regulation**	10%	14	12	10	91	
Chapter 2	Ethics and Investment Professionalism						49
Chapter 3	Regulation						42
Module 3	**Inputs and tools**	20%	50	24	20	291	
Chapter 4	Microeconomics						53
Chapter 5	Macroeconomics						57
Chapter 6	Economics of International Trade						47
Chapter 7	Financial Statements						70
Chapter 8	Quantitative Concepts						64
Module 4	**Investment instruments**	20%	29	24	20	213	
Chapter 9	Debt Securities						69
Chapter 10	Equity Securities						72
Chapter 11	Derivatives						42
Chapter 12	Alternative Investments						30
Module 5	**Industry structure**	20%	27	24	20	96	
Chapter 13	Structure of the Investment Industry						28
Chapter 14	Investment Vehicles						29
Chapter 15	The Functioning of Financial Markets						39
Module 6	**Serving client needs**	5%	12	6	5	76	
Chapter 16	Investors and Their Needs						35
Chapter 17	Investment Management						41
Module 7	**Industry controls**	20%	24	24	20	154	
Chapter 18	Risk Management						51
Chapter 19	Performance Evaluation						53
Chapter 20	Investment Industry Documentation						50
	Total	**100%**	**163**	**120**	**100**	**949**	**949**

AFTER COMPLETING THIS CHAPTER, YOU SHOULD BE ABLE TO DO THE FOLLOWING:

a) Distinguish between primary and secondary markets;
b) Explain the role of investment banks in helping issuers raise capital;
c) Describe primary market transactions, including public offerings, private placements, and rights issues;
d) Explain the roles of trading venues, including exchanges and alternative trading venues;
e) Identify characteristics of quote-driven, order-driven, and brokered markets;
f) Compare long, short, and leveraged positions in terms of risk and potential return;
g) Describe order instructions and types of orders;
h) Describe clearing and settlement of trades;
i) Identify types of transaction costs;
j) Describe market efficiency in terms of operations, information, and allocation.

PRIMARY AND SECONDARY MARKETS



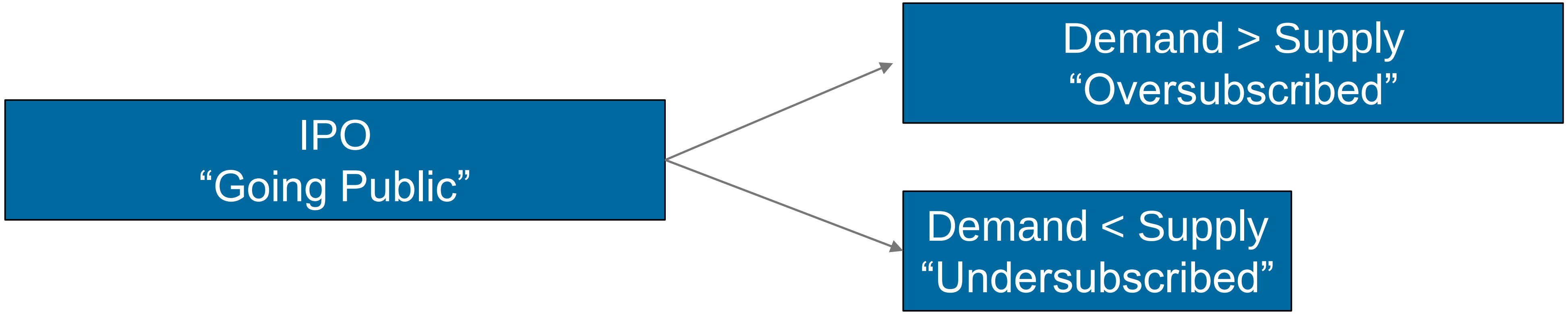
LOS a: Distinguish between primary and secondary markets.

INVESTMENT BANKS

Large offerings are often organised by a **syndicate** that includes several investment banks.

LOS b: Explain the role of investment banks in helping issuers raise capital.

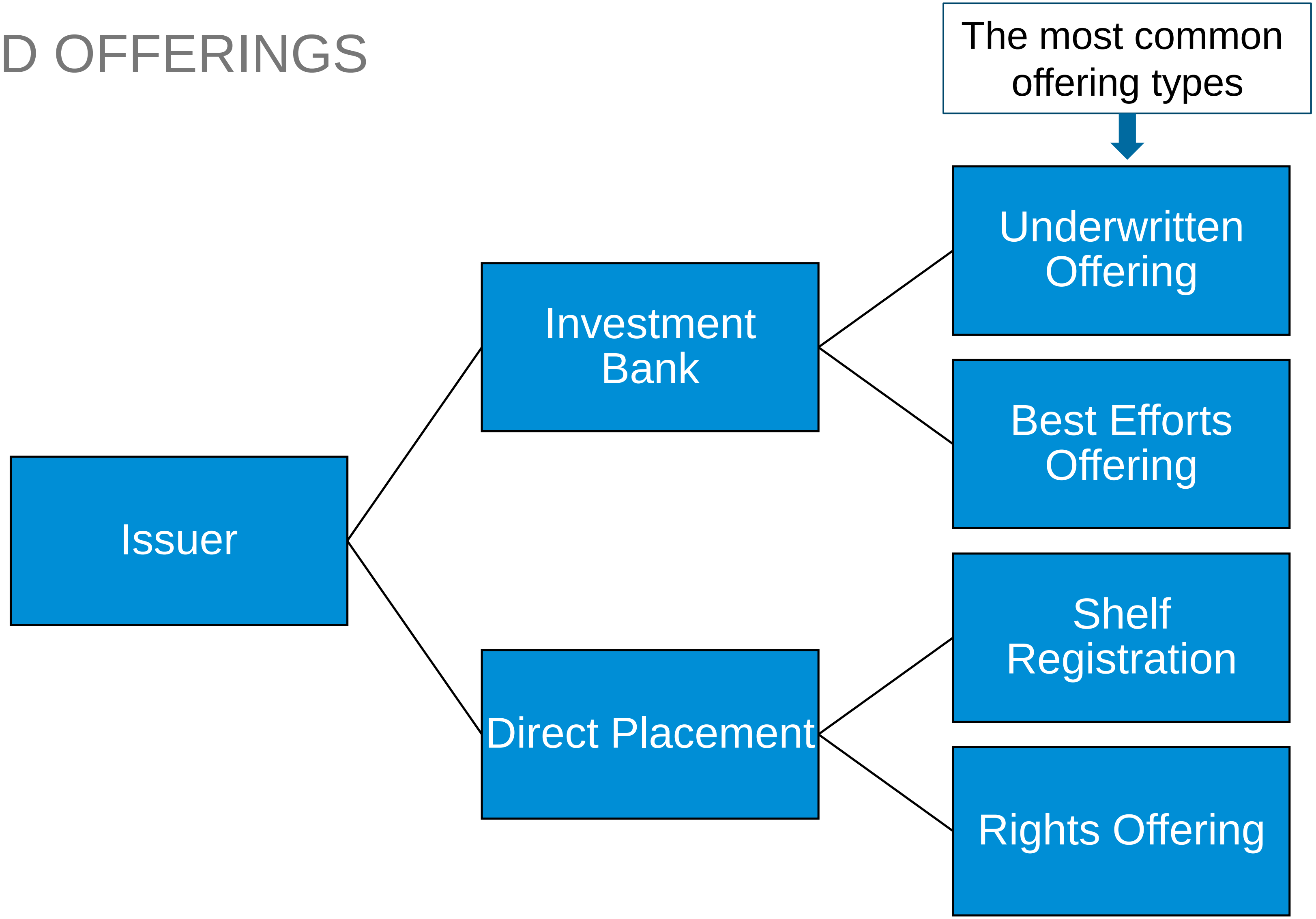
INITIAL PUBLIC OFFERING (IPO)



The underwriters have strong incentives to choose a lower price because it reduces the risk of the offering being undersubscribed.

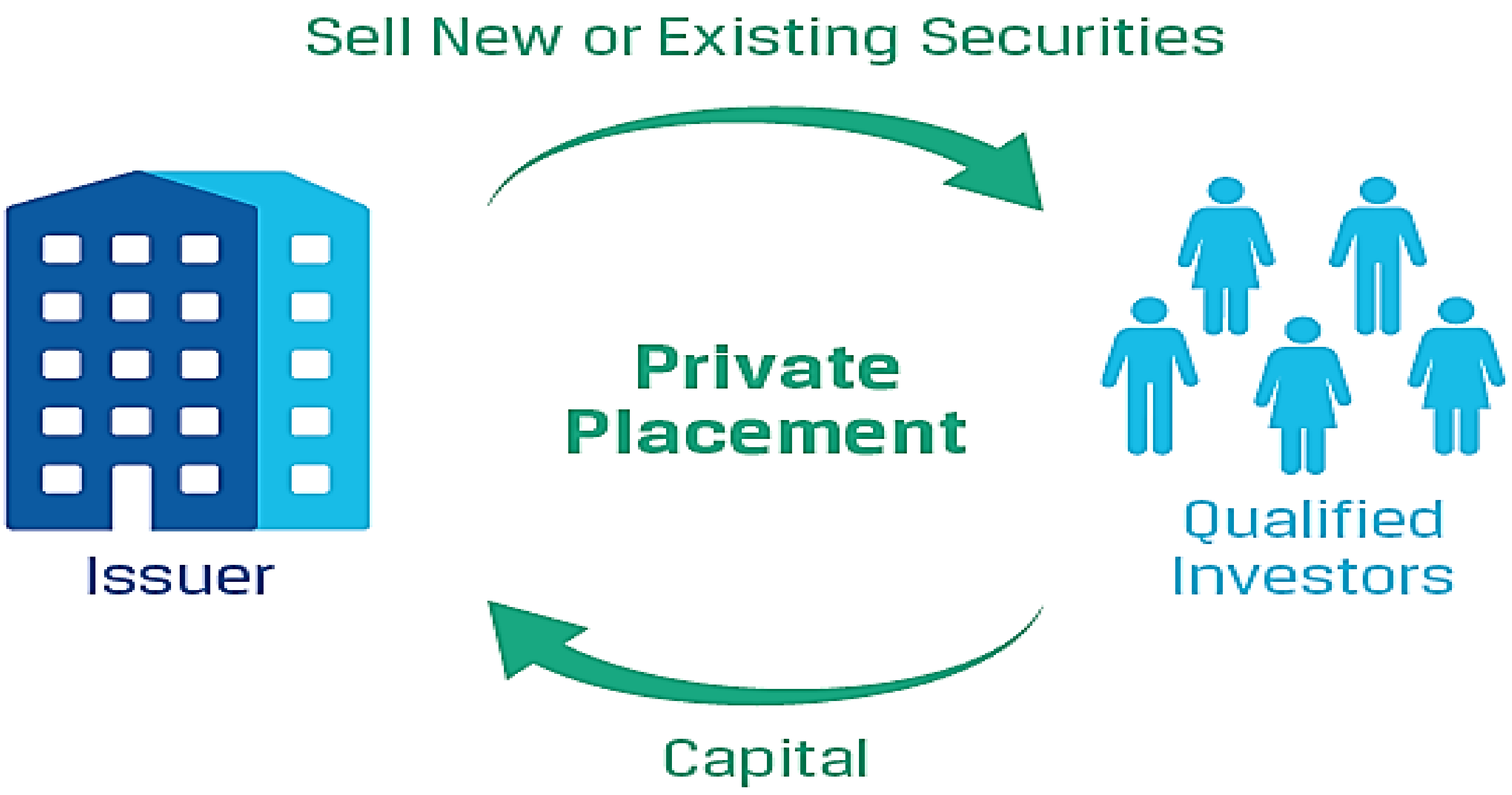
LOS c: Describe primary market transactions, including public offerings, private placements, and rights issues

SEASONED OFFERINGS



LOS c: Describe primary market transactions, including public offerings, private placements, and rights issues.

PRIVATE PLACEMENTS



LOS c: Describe primary market transactions, including public offerings, private placements, and rights issues.

RIGHTS OFFERINGS

Rights offerings are options given to existing shareholders to buy proportionally more shares at below market prices.

Shareholders can

- exercise their options and maintain their proportional ownership or
- sell the rights to offset the dilution of ownership.

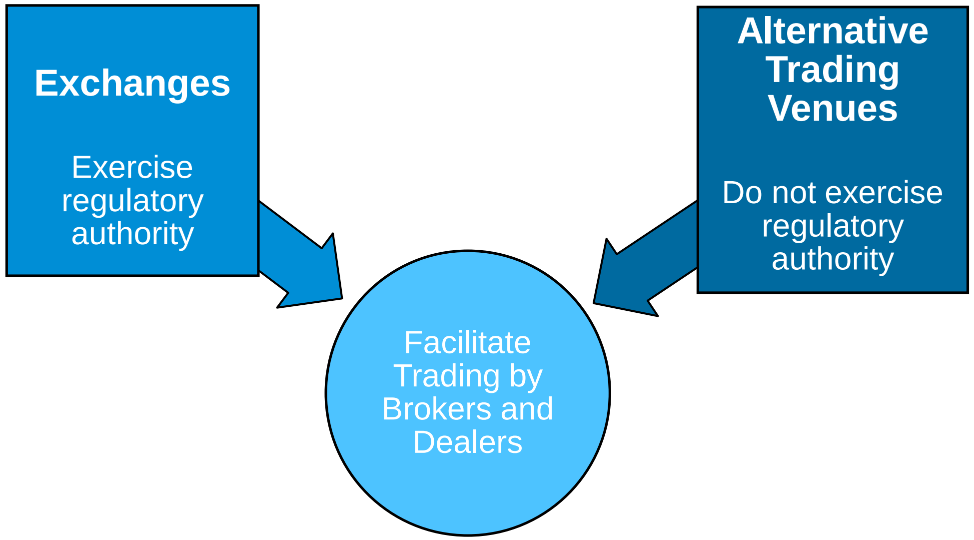
LOS c: Describe primary market transactions, including public offerings, private placements, and rights issues.

OTHER PRIMARY MARKET TRANSACTIONS

The national governments of financially strong countries generally issue their debt securities in public auctions and may also sell securities to dealers, who then resell them to their clients.
Smaller and less financially secure national governments often contract with investment banks to help them sell their securities.

LOS c: Describe primary market transactions, including public offerings, private placements, and rights issues.

EXCHANGES AND ALTERNATIVE TRADING VENUES



- **Orders** are instructions that investors who want to trade give trading service providers, such as brokers and dealers.
- **Exchanges** are where traders can meet to arrange their trades.
- The main distinction between exchanges and brokers is their regulatory operations.
- Many exchanges also regulate the issuers that list on the exchange
- Not all secondary market trading takes place on an exchange.
- There are a number of **alternative trading venues** that are owned and operated by broker/dealers, exchanges, banks, and private companies.
- One type of alternative trading venue is a **crossing network**
- Some alternative trading venues are known as **dark pools**

- An important distinction between exchanges and alternative trading venues is the regulatory authority that exchanges exert over users of their trading systems.
  - Alternative trading venues only control the conduct of subscribers who use their trading systems.

LOS d: Explain the roles of trading venues, including exchanges and alternative trading venues.

PRACTICE Q: DIFFICULT

To minimise adverse price movements, an investment manager will most likely execute a large order:

A. within dark pools.
B. on the floor of a stock exchange.
C. by using an electronic order matching system.

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To minimise adverse price movements, an investment manager will most likely execute a large order:

A. **within dark pools.**
B. on the floor of a stock exchange.
C. by using an electronic order matching system.

A is correct. Alternative trading systems are trading venues that function as exchanges. **Many alternative trading systems are known as dark pools because of a lack of transparency**—orders are not displayed to the market.

Large investment managers like alternative trading systems because market prices often move to their disadvantage when other traders know about their large orders. Most alternative trading systems allow institutional traders to trade directly with each other.

EXECUTION MECHANISMS

Call Markets: Matching buyers and sellers in call markets is easy because the traders (or their orders) come together at the same time and place.

Continuous trading market, participants can arrange and execute trades any time the market is open. Most markets, including alternative trading venues, are continuous.

Quote-driven: Investors trade with dealers

- Dealers provide liquidity in quote-driven markets. Public traders as well as dealers provide liquidity in quote-driven markets.

Order-driven: Rules used to match buyers and sellers, price, time,

- Order-driven markets arrange trades by ranking orders using precedence rules. The rules generally ensure that traders who provide the best prices, display the most size, and arrive early trade first. Continuous order-driven markets price orders using the discriminatory pricing rule. Under this rule, standing limit orders determine trade prices.

Brokered markets: Broker finds counterparty for a trade

- Brokers help people trade unique instruments or positions for which finding a buyer or a seller is difficult.

LOS e: Identify characteristics of quote-driven, order-driven, and brokered markets.

EXECUTION MECHANISMS

Quote-Driven Markets
- Investors trade with dealers at prices quoted by dealers
- Over-the-counter (OTC) markets

Order-Driven Markets
- Trades are arranged using rules to match buy and sell orders
- Exchanges and alternative trading systems

Brokered Markets
- Brokers arrange trades among their clients
- Assets are infrequently traded and expensive to carry in inventory

LOS e: Identify characteristics of quote-driven, order-driven, and brokered markets.

PRACTICE Q: DIFFICULT

Stock exchanges most likely use trading systems that are:

A. price-driven.
B. order-driven.
C. quote-driven.

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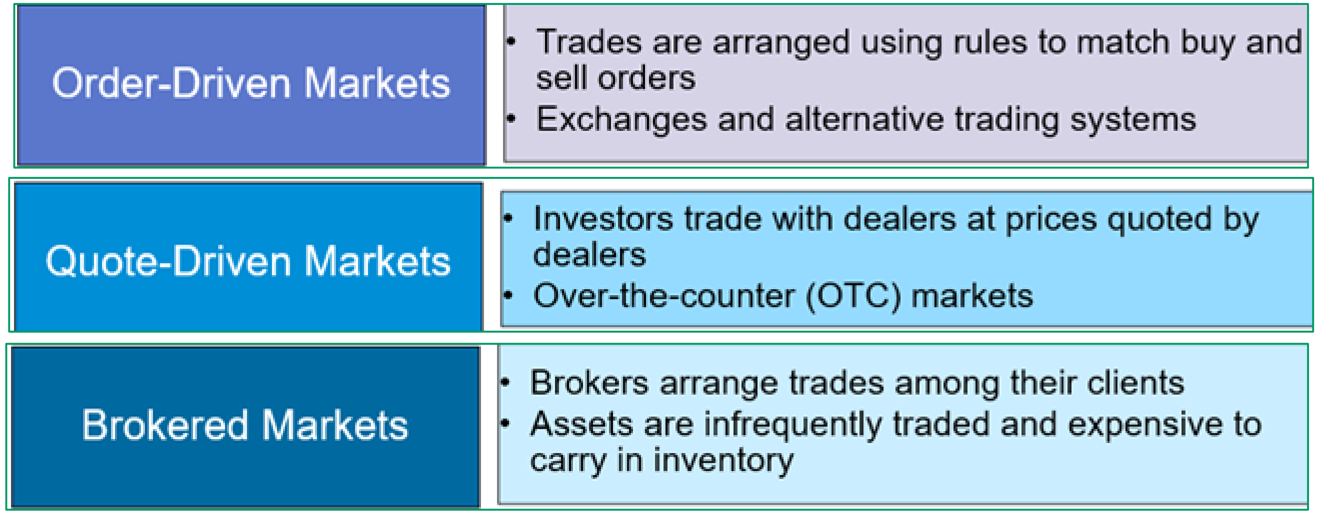

B is correct. Many shares trade on exchanges that use order-driven trading systems. Order-driven markets arrange trades by using rules to match buy orders with sell orders.

Price-driven and quote-driven markets are the same thing; they are also called over-the-counter markets. They are markets in which investors trade with dealers at the prices quoted by the dealers. Almost all bonds and currencies and most commodities for immediate delivery (spot commodities) trade in price-driven/quote-driven markets.

PRACTICE Q: CFA LEVEL 1

A call market is *least likely characterized as a market:*

A. with bid-ask prices posted by dealers.
B. where buy-sell orders are cleared at a single equilibrium price.
C. with participation by a small number of active investors-traders.

PRACTICE Q

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Answer: A

In a call market traders/investors indicate their bids and asks for stocks and they are **not** posted by dealers. Also, a call market is not a dealer or quote-driven market.

LONG AND SHORT POSITIONS

Long Positions

Securities are purchased, giving ownership of securities or assets

Gains occur when prices rise

Short Positions

Securities or assets are borrowed to be sold and then eventually repurchased

Gains occur when prices fall

LOS f: Compare long, short, and leveraged positions in terms of risk and potential return.

LEVERAGED (MARGIN) POSITIONS

Position Value ÷ **Trader's Equity** = **Leverage Ratio**

Asset's or Security's Return × **Leverage Ratio** = **Trader's Return**

10% × **2.5** = **25%**

A = L + E
\$100 / \$40 = 2.5

Margin

A = L + E
\$100 = \$60 + \$40

Stock goes up 10%:
\$110 = \$60 + **\$50**

Stock return:

$$\frac{\$110 - \$100}{\$100} = 0.10 = 10\%$$

Investor return:

$$\frac{\$50 - \$40}{\$40} = 0.25 = 25\%$$

These calculations do not count interest on the margin loan and commission payments, both of which lower realized returns.

LOS f: Compare long, short, and leveraged positions in terms of risk and potential return.

ORDERS: BID AND ASK (OFFER) PRICES

Ask (Offer) Prices	
Prices at which dealers are willing to sell	Lowest ask is the best ask

Minus

Bid Prices	
Prices at which dealers are willing to buy	Highest bid is the best bid

Equals

Market Bid–Ask Spread
Difference between best bid and best ask (offer) prices

LOS g: Describe order instructions and types of orders.

ORDERS: BID AND ASK (OFFER) PRICES

Order Prices

Bids	Offers (Asks)	
	33	The least aggressively priced sell orders are far from the market.
	32	
	31	These sell orders are *behind the market. We also say* that they are *away from the market.*
	30	
	29	
	28	The *best offer is at the market.*
The best bid and best offer *make the market.*	market bid–ask spread	The space between the current best bid and offer is *inside the market. If a new limit order arrives here,* ***it makes*** *a new market.*
26		The *best bid is at the market.*
25		These buy orders *are behind the market. We also say that they* are *away from the market.*
24		
23		
22		The least aggressively priced buy orders are *far from the market.*
21		

LOS g: Describe order instructions and types of orders.

ORDERS: BID AND ASK (OFFER) PRICES

Market order:

- Immediate execution, best available price

Limit order:

- Buy at limit price or lower
- Sell at limit price or higher

Stop-loss order:

- Sell if stock goes down to stop price
- A trade at the stop price activates a **market order**

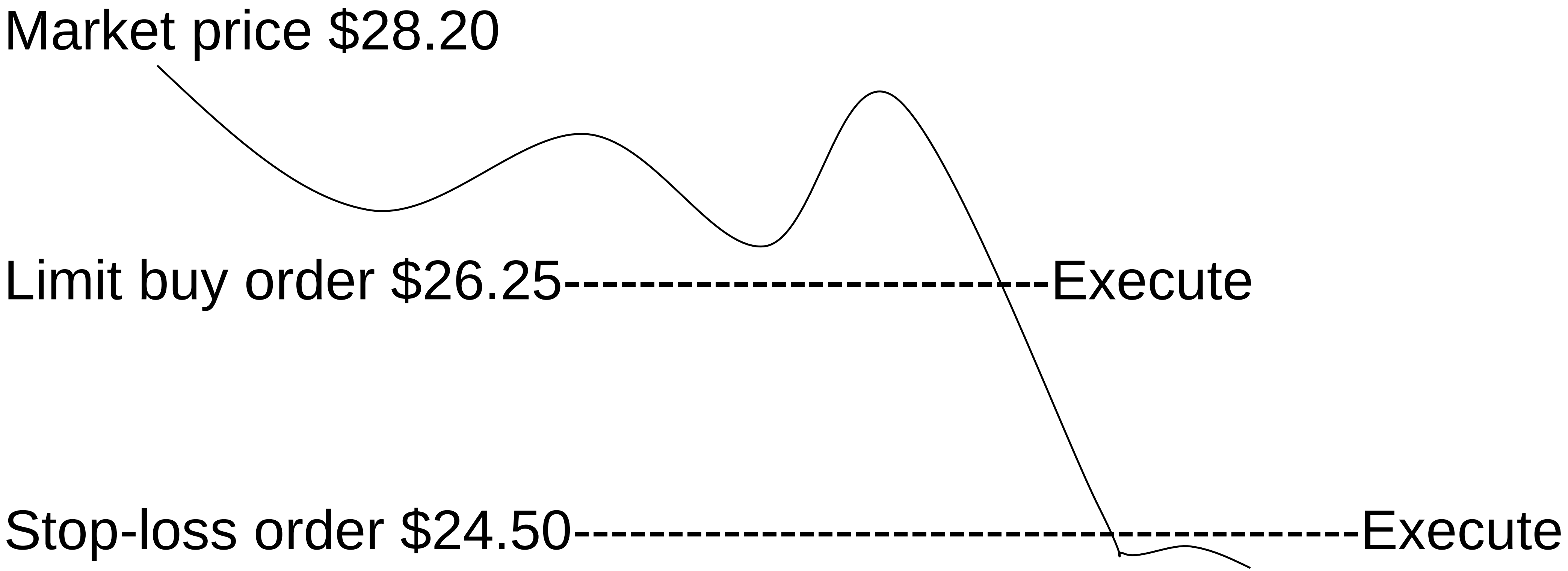
Stop-buy order:

- Buy if stock goes up to stop price
- A trade at the stop price activates a **market order**

- Can have stop limit order, stop triggers a limit order

LOS g: Describe order instructions and types of orders.

ORDER EXECUTION INSTRUCTIONS



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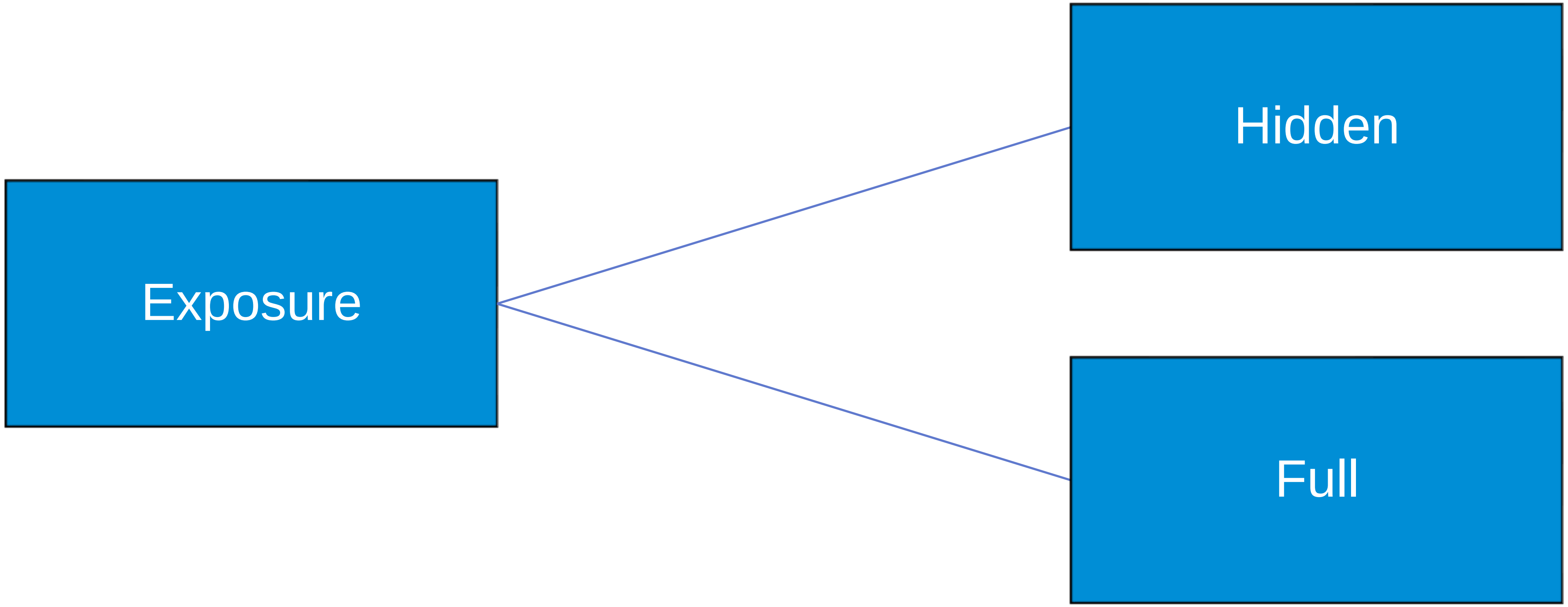
ORDER EXPOSURE INSTRUCTIONS



LOS g: Describe order instructions and types of orders.

ORDER TIME-IN-FORCE INSTRUCTIONS

Time-in-force instructions indicate when an order can be filled.

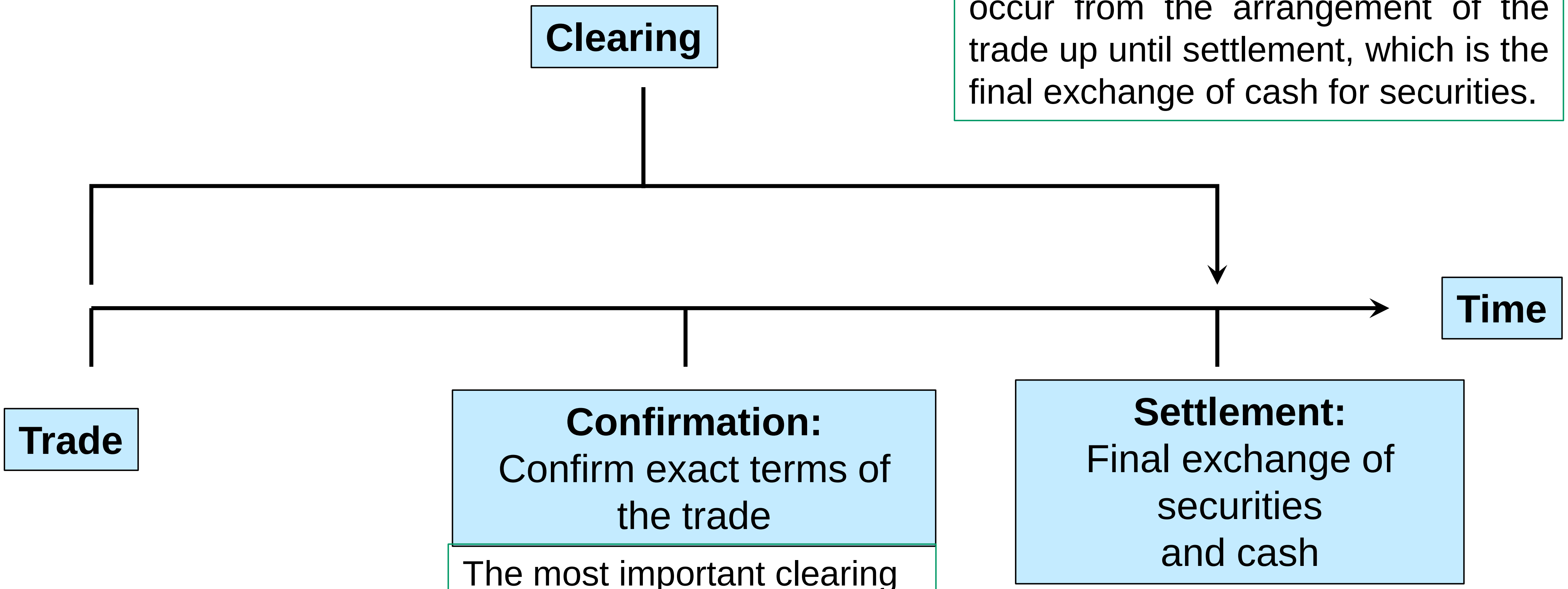
The most common time-in-force instructions are

- **Immediate or cancel orders**, which can be executed only on immediate receipt by the broker or trading venue;
- **Day orders**, which can be executed only on the day they are submitted and are cancelled at the end of that day;
- **Good-until-cancelled orders**, which can be executed until they are cancelled; some brokers or trading venues may set a maximum numbers of days before the order is automatically cancelled.

LOS g: Describe order instructions and types of orders.

CLEARING AND SETTLEMENT CYCLES

Clearing refers to all activities that occur from the arrangement of the trade up until settlement, which is the final exchange of cash for securities.



The most important clearing activity is confirmation

LOS h: Describe clearing and settlement of trades.

PRACTICE Q: EXPERT

Which activity is a clearing activity?

A. Exchanging cash for securities
B. Confirming the terms of the trade
C. Reporting the trade to the company’s transfer agent

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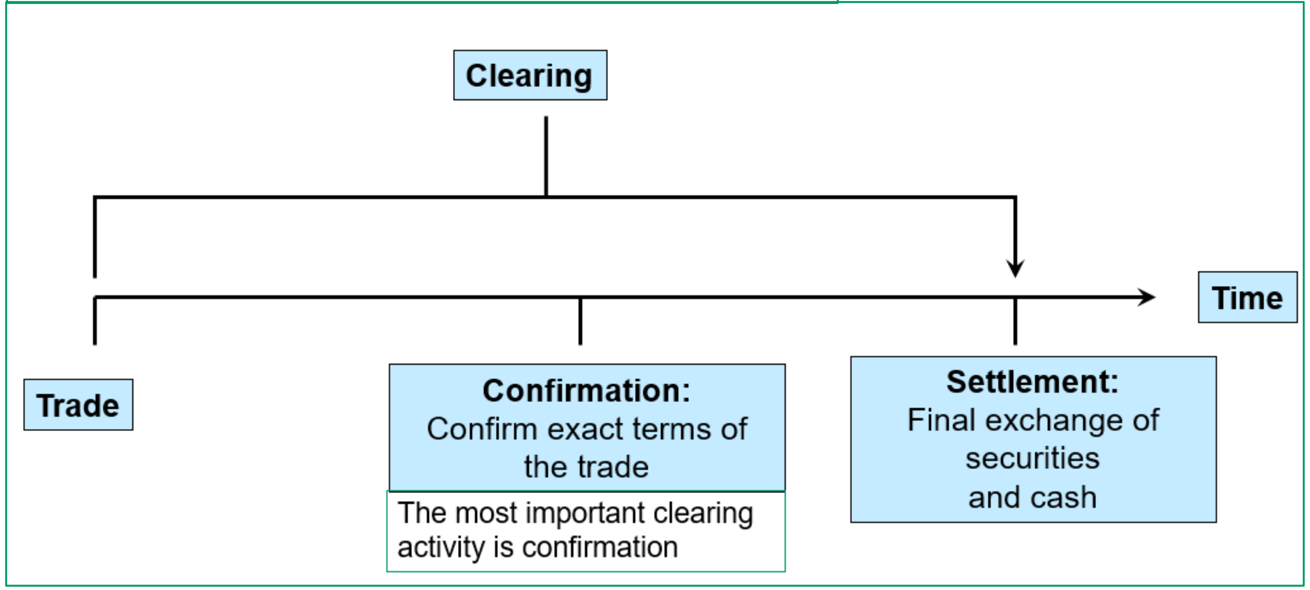
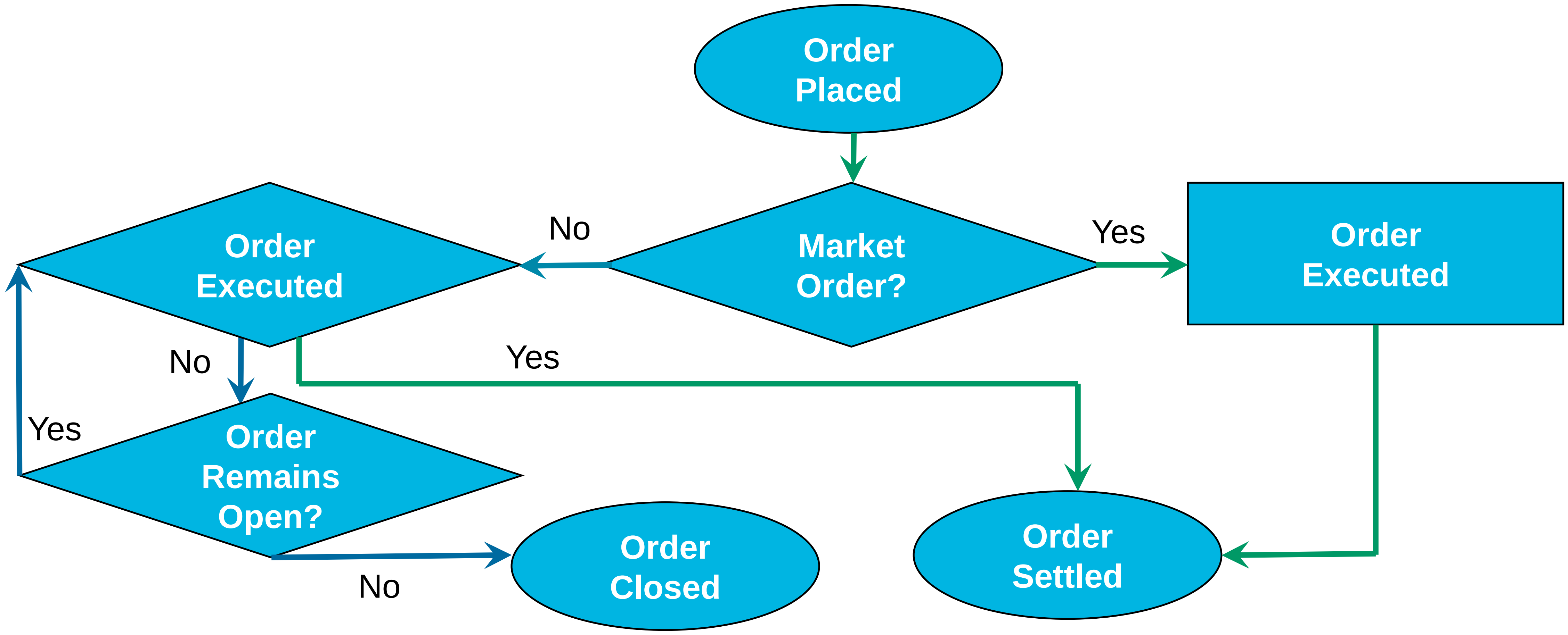


B is correct. The most important clearing activity is confirming the terms of the trade.

A and C are incorrect because exchanging cash for securities and reporting the trade to the company's transfer agent **are activities that occur after clearing activities and are settlement activities**.

A TRADE FROM ORDER TO SETTLEMENT/CLOSURE



LOS g: Describe order instructions and types of orders.
LOS h: Describe clearing and settlement of trades.

Assumes order is one for which the trade is approved

PRACTICE Q: EXPERT

A registry of who owns a company's securities is usually maintained by a(n):

A. exchange.
B. custodian.
C. transfer agent.

PRACTICE Q: EXPERT

A registry of who owns a company's securities is usually maintained by a(n):

A. exchange.

B. custodian.

C. transfer agent.

C is correct. A transfer agent, which is normally a bank or trust company, maintains the registry of who owns a company's securities.

Glossary:

Custodians: Typically, banks and brokerage firms that hold money and securities for safekeeping on behalf of their clients.

Transfer agent: Typically a bank or trust company that maintains a registry of who owns companies' securities.

TRANSACTION COSTS

Explicit Trading Costs

- Brokerage Commissions
- Fees paid to trading venues and financial transaction taxes

+

Implicit Trading Costs

- Bid–Ask Spreads
- Price Impact
- Opportunity Costs

=

Total Trading Costs

LOS i: Identify types of transaction costs.

PRACTICE Q: EXPERT

For large institutions, the largest component of their transaction costs is generally considered to be:

A. commissions.
B. market impact.
C. bid–ask spreads.

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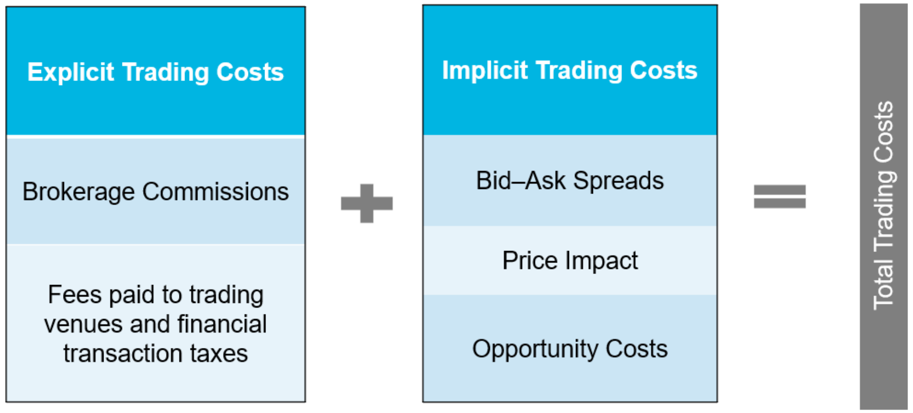

B is correct. For large trades, impatient buyers generally must raise prices to encourage other traders to sell to them. Likewise, large impatient sellers must lower prices to encourage other traders to purchase from them. These price concessions often occur over time as large buyers push prices up and large sellers push prices down in multiple transactions.

For large institutions, the price impact of trading large orders generally is the largest component of their transaction costs.

EFFICIENT FINANCIAL MARKETS

Operational Efficiency:

- Low transaction costs
- Small bid–ask spreads
- Absorb large trades with little price impact

Informational Efficiency:

- Prices reflect all available information about fundamental values

How closely prices reflect fundamental value is a function of:
1.operational efficiency.
2.allocational efficiency.
3.informational efficiency.

Allocational Efficiency:

- Resources are put to use where they are most valuable.

LOS j: Describe market efficiency in terms of operations, information, and allocation.