Series 57

Securities Trader Qualification Exam

3RD EDITION

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Series 57 Exam Introduction

Welcome to your Knopman Marks Series 57 study materials. We're pleased to have you as one of our students and wish you well as you follow our proven study method for achieving exam success. Before you begin to study, you should have some general knowledge about the Series 57 Exam.

What Is the Series 57 Exam About?

The Series 57 is primarily concerned with a candidate's ability to understand the rules and concepts associated with being a securities trader. These concepts include:

- Market structure
- Types of orders (e.g., limit, stop, market)
- Front-running and other trading violations
- Trade reporting and regulation

Much of the testable content on the Series 57 is based on specific rules from Nasdaq, FINRA, CBOE, and the SEC. Although the rule numbers are generally included within the relevant sections, candidates are rarely expected to know the rules by number or letter on the exam. In circumstances where candidates need to memorize the title or number of the rule, a Knopman Note will call out this fact.

> Throughout this book certain heavily tested concepts are identified as Knopman Notes with gray shading and bold text. Please be sure to pay special attention to these callouts, as they highlight important testable points.

> ***Knopman Note:*** This manual will include many technical terms, such as exchange, ECN, ATS, and market maker. The most important ones are defined at the beginning of Chapter 1. Feel free to refer back to these terms as necessary.

Knopman Note: Throughout this book, a number of rules involve percentages of prices—examples include defined limit, designated percentages, limit up/limit down, and clearly erroneous trades. **Although these figures are testable**, the concepts behind these rules are much more important than memorizing the individual numbers. As you come across the tables in this book that detail these percentages, pay more attention to what they mean than to the actual numbers.

Eligibility Requirements

All candidates must be associated with and sponsored by a FINRA member firm to be eligible to take the Series 57 Examination and register as a securities trader.

To become fully registered, candidates must pass both the Series 57 Exam and a general knowledge co-requisite, the Securities Industry Essentials (SIE) Exam. Although the exams can be taken in any order, we recommend taking the SIE first—as certain Series 57 content builds upon the SIE. Unlike the Series 57, the SIE Exam does not require sponsorship by a FINRA member firm.

Exam Specifications

The Series 57 Exam is a 50-question, multiple-choice test. Each exam includes five, unidentified pre-test questions that are ungraded and do not count toward the final score. Thus, the total exam length is 55 questions (50 scored and five unscored). You are given one hour and 45 minutes to complete the exam. The passing score is 70%.

Each candidate's exam is uniquely generated from a large question bank, but all exams will evaluate a candidate's understanding of two major content areas. The topics covered in the Series 57, and the number of questions to expect from each major job function, are identified in the following table. Some chapters will cover multiple job functions, but the list below shows the primary function discussed in each chapter.

Major Job Function	Description	Number of Questions	Percentage of Exam	Chapters
1	Trading Activities	41	82%	1, 2, 3, 6, 8
2	Maintaining Books and Records, Trade Reporting, and Clearance and Settlement	9	18%	4, 5, 7
	Total	**50**	**100%**	

Before the exam clock begins, an online tutorial will familiarize you with how the system operates. The system is easy to use—no prior experience is necessary, though you can review the tutorial as much as needed before you begin the exam. Among the features of the exam are:

- A clock display that can be turned on/off so you can track the time remaining
- A confirmation box that appears each time you answer a question so you can confirm your answer before proceeding to the next question
- The ability to mark questions you wish to review later so you can easily go back to them

You may find the actual exam questions to be longer, with more extraneous information, than the practice questions. As such, it is important to check the timer periodically to ensure you are on target to finish the exam. At the end of the allowed testing time, or when you voluntarily stop your exam, your score will be calculated and a score report will be displayed. The score report will show whether you passed the exam, and you will be given a copy of this report when you leave the center.

How to Make an Exam Appointment

Before you can take the exam, you must work with your broker-dealer to file your paperwork and fingerprints with FINRA. At that point, you will be provided with instructions on the necessary steps to complete and file your form and the exam fees with FINRA. After FINRA has reviewed your form and found it complete and accurate, it will open an **exam window** for you. You must take your exam during this period. If you do not, your broker-dealer must open a new window and pay additional fees.

After your window has been opened, you or your broker-dealer may make an exam appointment. The Series 57 Exam is offered at Prometric testing centers. You may either register online or call the testing center to make your appointment:

- **Prometric**
  Call (800) 578-6273 or visit www.prometric.com/finra.

Examination appointments are offered daily, including weekend availability. To get your desired date, we suggest scheduling your test as far in advance as possible.

If needed, you may cancel an exam appointment before the scheduled session. To avoid fees, candidates must cancel or reschedule a minimum of 10 business days in advance. Appointments cancelled or rescheduled within 10 business days will result in the assessment of one of the following fees:

Three- to Ten-Business-Day Cancellation/Reschedule Fee: Individuals who cancel or reschedule within three to 10 business days of a scheduled session will be assessed a fee equal to half the cost of the examination.

Two-Business-Day Cancellation/Reschedule Fee: Individuals who cancel or reschedule within two business days of a scheduled session, or who fail to show up for an exam, will incur a fee equal to the fee of the examination.

On the Day of Your Exam

Plan to arrive at your exam location 30 minutes before your scheduled appointment time. To gain admission, you must provide a valid government-issued form of ID with your signature and your picture. Acceptable forms of ID include your driver's license, passport, or military ID.

The exam is closed-book, and you cannot bring your notes, books, or other personal items into the testing center. Any personal effects (e.g., phones, laptops, watches, etc.) must be left in a locker or in another location provided by the testing center. The center's staff will provide candidates with scratch paper—typically laminated paper with a dry-erase marker—and a basic, four-function calculator. Do not bring your own calculator with you for your exam—you will not be allowed to use it.

Some students find the resources provided at the testing centers to be of a poorer quality than those they used while studying for the exam. Specifically, the calculator may be quite small, with few digits available on the screen. This will require you to abbreviate numbers when doing calculations—for example, 14.7 instead of 14,700,000. It is a good idea to practice using a similarly small, four-function calculator.

Likewise, you may want to purchase a dry erase marker and a small erasable pad to practice on, in order to simulate test conditions as closely as possible.

The Knopman Marks Method

We are excited to help you get started, prepare for, and ultimately pass the Series 57 exam!

Start by reviewing our step-by-step **Action Plan**. The Action Plan is found on our Training Center at www.knopman.com and is the best approach to get on the path to success. The Action Plan is critical: following each step as listed is key and it is our recommended plan of attack.

Below are some helpful tips that you should keep in mind as you start the Series 57 study process:

- Make the exam a high priority: set aside study time each day, including weekends—even if it's just 45 minutes or an hour. Limiting your preparation to weekends only is often counterproductive and inefficient, as you will forget much of what you studied if you go four or five days without reviewing the information.
- Be sure to study in a quiet, well-lit place to maximize your productivity. Minimize all distractions and dedicate yourself to focused, productive studying.
- Keep in mind that the goal of reading this textbook is general understanding, rather than retention. We do not recommend taking notes while you read (though highlighting is fine). The retention will come later when you watch our online lectures and work through the practice exams.
- When watching the online lectures on the Knopman.com Training Center, take detailed notes by hand. This results in better retention and recollection than typing. These lectures focus on the most heavily tested and difficult concepts on the exam.
- As you complete our practice exams, use only new questions from the question bank to ensure that you are grasping and mastering the

concepts, rather than simply memorizing previously seen questions. Read the answer and rationale for each practice question so that you can understand why you got the question right or wrong.

- Although our practice questions are similar to the questions you will see on the exam, they are not exact replicas. You may even see questions on your exam that cover information you don't feel prepared for. Remain confident—if you have prepared well and followed our Action Plan, you will be successful on the exam.

> ***Knopman Note:*** Certain topics on the Series 57 assume knowledge of fundamentals that are tested on the SIE Exam. For example, the Series 57 includes questions on complex options positions, such as spreads and straddles. Answering these questions requires an understanding of single options positions, which are tested on the SIE. Series 57 candidates who would like to refresh these fundamentals can find a number of supplements in the Training Center at www.knopman.com.

You will also find additional useful tips, callouts, and practice exercises throughout the textbook. Some of those include:

- Study Essentials, which are helpful tricks to turbo charge your exam prep and maximize study efficiency and effectiveness.
- Knopman Notes, which highlight important, heavily testable points.
- Progress and unit exams dispersed throughout the textbook to periodically test and reinforce your newly learned knowledge.

We are mindful that everyone learns differently, but we ask that you stick to the Action Plan when starting off. Whether on a tight timeline or not, your studying methods will naturally evolve as you progress through the steps in the Action Plan and you will find some resources more useful than others.

Lastly, our materials are consistently being updated to reflect new content and rule changes. To account for that, please make sure to enter your exam date in the Training Center once it is confirmed with Prometric so that we can send you any important updates leading up to your exam.

> ***Knopman Note:*** Many additional supplements are available in your Training Center. Be sure to log in and spend significant time reviewing these supplements.

If you have any questions about logging in to our website or accessing your study resources, please email support@knopman.com. Good luck with your studying!

Study Smarter with Study Essentials

Have you ever been taught *how* to learn? How to manage test-taking anxiety? How about ways to improve focus and recall when learning dense material?

Most of us have not, so consider starting your exam prep with the answers to these and other questions in our Study Essentials course. There, we help you maximize every hour you spend learning this new material. Below is a short Study Essentials refresher; be sure you put these techniques into practice as you start studying.

If you haven't taken Study Essentials yet, you should. It's short and sweet, and the single best first step you can take to ramp up the effectiveness of your study time. It's ready and waiting for you in your Training Center.

You'll want to avoid the traps that prevent learners from performing their best. Some of the most popular study habits are counterproductive, such as:

- Studying on weekends only
- Pulling all-nighters
- Skipping workouts to have more time to study
- Using energy drinks and junk food to stay awake longer

Instead, follow our learning strategies and approach to optimize your mindset so you master the testable content as efficiently as possible.

Study Essentials Recap

Study Essentials sets you up for success with the following:

1. **Vibes**: A high-performance primer that helps you study more in less time. Use our science-backed good VIBES approach to supercharge your study process.
2. **Active Learning**: Boost learning with memory hacks, study blocks, spaced repetition, and active recall.
3. **The Fundamentals**: Make the most of the brain-body connection with physical activity, rest, and recovery. Your mood and self-care are connected to how effectively you focus and study.

We delve into each of these three components throughout this textbook. Any time you need a boost of motivation or a refresher on practical study tips, we invite you to revisit our Study Essentials course.

Here's to making the most of every single hour you study. We believe in your success!

—Dave

1. The Nasdaq Stock Market

1.1 Introduction

Passing the Series 57 Exam requires knowledge and mastery of equity trading information, including an understanding of:

- The various markets, exchanges, and venues where equities trade—and the rules and requirements of each of these systems
- How investors, traders, and market makers access those markets
- How market participants can place orders to buy and sell securities—including the specific characteristics of those orders and how market-making firms that accept those orders have to protect, handle, execute, and report them

The Securities Exchange Act of 1934 ('34 Act) regulates the purchase, sale, and exchange of securities in the capital markets. The '34 Act established the rules and requirements for over-the-counter transactions in the **secondary market**. The '34 Act was supplemented by the Maloney Act of 1938, which permitted self-regulatory organizations (SROs) to supervise and regulate broker-dealers operating in the secondary market. Today, the Financial Industry Regulatory Authority (FINRA) serves as the industry's primary SRO.

This manual will address the main markets where equities trade and the different rules governing those marketplaces. We will also look at how firms that are the intermediaries between customers and the equities markets serve their clients and abide by the relevant securities laws and trading rules. A key player in this process is the market maker. This section will discuss the essential role market makers play in matching buyers and sellers or trading for themselves to maintain fair and orderly markets.

Over time, the role of market makers has changed with the introduction of new securities, technologies, and exchange infrastructure. Today's market makers rely on electronic exchanges, automated quotes, and back-office systems that did not exist in 1934. However, many of the rules and professional practices that define the market maker's responsibilities remain unchanged.

1.2 Overview of Markets

To successfully pass the exam, candidates must understand certain key terms that describe the equity markets and how the various markets and market participants interact.

1.2.1 Key Definitions

Market center—A market center is a location where securities orders can be executed. Market centers include registered exchanges—such as the NYSE and Nasdaq—and non-exchange trading venues—such as electronic communications networks (ECNs), other market makers, or even a different division of the same firm (internalization) where orders can be filled.

Exchange—An exchange is an SEC-registered entity that provides a marketplace (physical or electronic) where securities may be bought and sold. An exchange is a type of market center. Examples of SEC-registered exchanges include:

- The Nasdaq Stock Market
- Nasdaq BX, Inc. (formerly the Boston Stock Exchange)
- Nasdaq PHLX LLC (formerly the Philadelphia Stock Exchange)
- New York Stock Exchange LLC
- NYSE Arca, Inc.
- NYSE MKT LLC (formerly NYSE AMEX and the American Stock Exchange)
- BATS BZX Exchange, Inc.
- Chicago Stock Exchange, Inc.
- EDGA/EDGX Exchange, Inc.
- Miami International Securities Exchange, LLC

Market maker—A market maker is any person (natural or legal entity) that holds itself out as willing to buy or sell a particular security at publicly quoted prices. Market makers include broker-dealers that trade for their own (proprietary) accounts or for the accounts of their customers (retail or institutional).

> ***Knopman Note:*** A market maker must be willing to hold itself out to buy and sell securities on a continuous basis. Candidates should memorize the market maker definition.

Bid–Ask "(size × size)"—The bid–ask refers to the publicly displayed quotes that market makers post for securities in which they make a market. The **bid** refers to the price at which a market maker stands ready to buy shares from sellers. The **ask** (also referred to as the **offer**) refers to the price at which a market maker stands ready to sell securities to a willing buyer. Thus, a market maker that is 9.00–10.00 1 × 3 is willing to buy shares at $9 and is willing to do so for one round lot, and will sell shares at $10 and is willing to do so for three round lots. A **round lot** is generally defined as 100 shares.

Market participant—A market participant is any party that is accessing, trading, or buying and selling equity securities. This broad term can include market makers, institutional traders, and retail investors.

Order—An order is an instruction to buy or sell a security. Orders can include many different types of additional instructions, such as acceptable prices (limit orders), timing, markets to route the order to (directed orders), and even whether to publicly display the order to the market at large (displayed orders).

Execution—A trade is executed when two parties agree (often electronically) to trade at a set price.

Trade report—After trades are executed, certain information about the trade, including the price and the number of shares, must be reported to the appropriate trade reporting facility. This information is then disseminated to the market at large.

Liquidity—Liquidity refers to the ease with which stock can be converted to cash or, put another way, how quickly it can be sold. When there are more participants in the markets, there is greater liquidity, and bid–ask spreads are tighter.

Broker—Any person who engages in securities transactions for the accounts of others, i.e., who matches a willing buyer and seller

Dealer—Any person who, in the regular course of business, engages in securities transactions for its own account, making the firm a party to the trade

Broker-dealer—A firm that trades securities for its own account or for the accounts of others. Many FINRA-registered firms are registered as broker-dealers because they can execute orders as a broker (agent) or dealer (principal).

> ***Knopman Note:*** Broker-dealers are required to be members of the Securities Investor Protection Corporation (SIPC), which protects customer accounts against the loss of their securities if their broker-dealer becomes insolvent.

Bank—An institution organized under US banking laws—a federal savings association, or a member of the Federal Reserve System—or any other institution for which a substantial portion of business consists of receiving deposits or exercising fiduciary powers

Clearing agent—Any person acting as an intermediary facilitating securities transactions. This can include handling payment for or deliveries of securities, providing settlement services, or acting as a custodian of securities. Broker-dealers, life insurance companies, and mutual funds are not considered clearing agencies when their activities are confined to their own accounts.

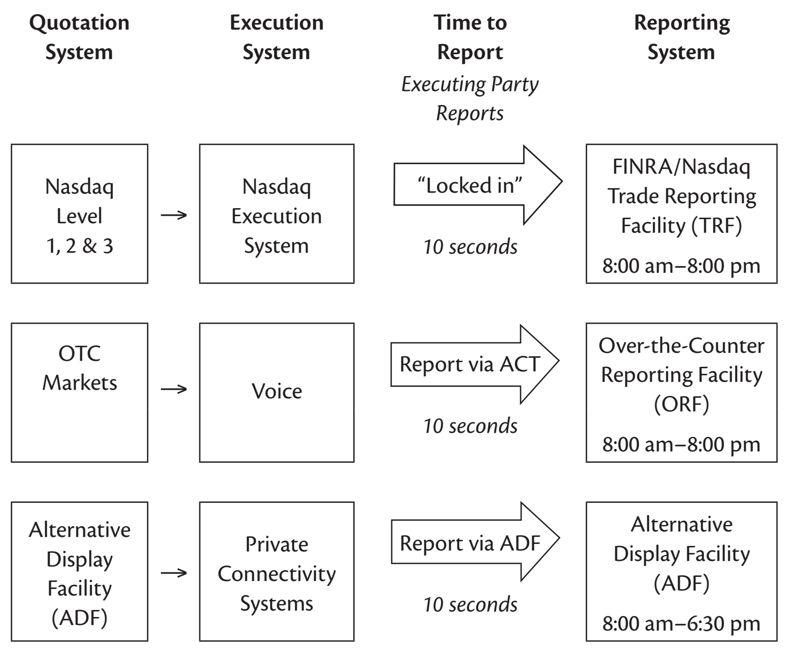
Transfer agent—Any person who registers the transfer or exchange of securities, or converts securities. Additionally, a **registrar** monitors securities to prevent unauthorized issuance.

Qualified block positioner—A broker or dealer that buys and sells blocks of stock with a current market value of at least $200,000 from a single source to facilitate a sale or purchase by a customer. Qualified block positioners must exercise reasonable diligence to confirm that the block could not be sold to or purchased from others on equivalent or better terms, and must execute the transaction as rapidly as possible commensurate with the circumstances. Qualified block positioners must maintain minimum net capital of $1,000,000.

Electronic communication network (ECN)—An ECN is an automated system that matches buy and sell orders for securities. The SEC requires ECNs to register as broker-dealers.

1.2.2 Equity Market Schematic

The chart below details the interaction between the various quotation, execution, and reporting facilities. Each of these systems and their relationship to one another will be explained throughout this manual.



There are three types of facilities:

- **Quotation systems** allow market participants to view information.
- **Execution systems** allow market participants to trade.
- **Reporting systems** allow for reporting of executed transactions.

This schematic will be useful to return to at various times throughout the book as the technological facilities are covered.

1.3 Role of a Market Maker

The '34 Act defines a **market maker** as:

- Any person (including any natural person, partnership, corporation, association, or other legal entity) that holds itself out as willing to buy or sell securities for its own account on a regular or continuous basis, or
- Any dealer acting as a block positioner (a type of market maker that is eligible to buy or sell blocks of stock with a current market value of $200,000 or more)

Market makers play an important role in the securities markets because they agree to stand ready to buy and sell securities during market hours. To provide this liquidity, market makers must continuously display public quotes representing the price at which they are willing to buy (their bid) or sell (their ask or their offer) securities from their own inventory. In general, market makers must have a **two-sided quote**—both a bid and an ask—for at least 100 shares of a stock during regular trading hours. This information will be displayed in the following manner throughout this manual:

Example

MMAA is quoting 10.00–10.25, sometimes displayed as 10.00–.25.

This means Market Maker A is willing to buy shares at $10 and is willing to sell shares at $10.25.

For many years, a distinction was made between **specialists**, who made markets on the floor of the New York Stock Exchange (NYSE), and Nasdaq market makers, who made markets on electronic exchanges. As the bulk of securities trading now occurs on electronic exchanges, this distinction has mostly disappeared. The NYSE specialists are now called **designated market makers**, and most NYSE trading occurs electronically, off the NYSE floor.

> ***Knopman Note:*** Floor brokers, floor market makers, specialists, and designated market makers are all associated with exchanges. The term **market maker** can be used in reference to exchanges (e.g., Nasdaq) or OTC securities.

In the current regulatory environment, firms that want to be market makers must register and be approved to make markets on the various exchanges and platforms, such as the NYSE, Nasdaq, the Alternative Display Facility (ADF), and the OTC markets. These venues, along with their associated registration processes and ongoing requirements, will be discussed below, with an emphasis on electronic trading, as that is the focus of the Series 57.

1.3.1 Executing Transactions

Market makers have a number of different ways to execute trades. The capacities in which a market maker can trade include:

- Principal
- Agent
- Riskless principal

1.3.1.1 Trading as Principal

When a market maker trades out of its own inventory, it is said to be acting in a principal or dealer capacity. In this scenario, the market maker is one of the counterparties to the transaction.

Example

A customer contacts a market maker to buy 1,000 shares of MSFT. The market maker executes the trade by selling the customer 1,000 shares of MSFT stock that it owns.

When a firm trades as a dealer, the fee paid by a client is called a **mark-up** (when the firm is selling to the client) or a **mark-down** (when the firm is buying from the client).

1.3.1.2 Trading as Agent

Although market makers are required to provide liquidity from their own accounts, to the extent that they have customer interest on the other side of the market, they can execute a trade in an agent (or a broker) capacity.

Example

Joe contacts Broker-Dealer A to buy 300 shares of IBM. Jane contacts Broker-Dealer A to sell the 300 shares of IBM stock that she currently owns. The broker-dealer will connect Joe and Jane—the two counterparties to the trade.

When trading as agent, the broker-dealer is facilitating a trade between two counterparties rather than participating as one.

When acting as an agent, the broker-dealer will receive a commission from each client.

1.3.1.3 Trading as a Riskless Principal

A **riskless principal trade** is one where a member, having received an order to buy, purchases the security as principal and then fills the existing customer order at the same price. It would also be a riskless principal trade in the opposite scenario, where the member sells in the market having already received a sell order from a customer.

The trade is considered **riskless** because the market maker buys the stock while already having an order in hand to immediately liquidate.

Technically, the trade is a principal trade because the stock instantaneously passes through the inventory of the broker-dealer. Functionally, though, the firm is acting as an agent.

Example

Joe contacts Broker-Dealer A to buy 300 shares of IBM. Broker-Dealer A, with Joe's buy order pending, buys 300 shares of IBM as principal at $150 per share. Broker-Dealer A then fills Joe's order at $150 per share.

1.3.2 Payments for Market-Making

Broker-dealers must use their business judgment to decide whether to make a market in a particular stock. The decision to do so must be based on valid and legitimate reasons. FINRA Rule 5250 prohibits any member from accepting any direct or indirect payment or consideration from an issuer of a security or any affiliate or promoter in return for:

1. Publishing a quote, or
2. Acting as market maker

Such payments create conflicts of interest because they can influence 1) the member's decision to make a market in a security and 2) which prices are quoted. A payment, for this purpose, can include cash, non-cash, or securities.

For example, it is prohibited for an issuer or a promoter to provide a market maker cash reimbursement to cover the member's out-of-pocket expenses incurred for Nasdaq registration as a market maker. Payments for services designed to promote interest in the issuer's securities—such as paying telemarketers to find qualified investors in secondary market trading—are also prohibited.

Knopman Note: Payments are prohibited for maintaining quotes or publishing a specific quote, as well as for market-making activities. Although issuers of thinly traded securities may have a legitimate business reason for wanting market makers to continue publishing quotes, they cannot pay a market maker any type of compensation, directly or indirectly, to do so. If they do, the market maker violates the rule by accepting the payment.

For this purpose, a **promoter** is broadly defined to include anyone other than the issuer and its affiliates who may have an interest in influencing the member's market-making. The term may include:

- A person who founded or organized the issuer's business
- A director or an employee of an issuer
- A consultant, an adviser, an accountant, or an attorney to an issuer
- A beneficial owner of an issuer's restricted securities, issued under Rule 144
- A beneficial owner of 5% or more of the public float of any class of issuer securities
- Any other person with similar interest in promoting quotes or market-making in issuer securities

Just about anyone connected to an issuer and who has an interest in promoting quotes or market-making in the issuer's securities can be considered a promoter. These prohibited payments are most prevalent in promoting penny stocks and shell companies, where public interest may not naturally exist.

The rule does permit a market-making member firm to accept certain payments or reimbursements that are deemed legitimate and not a payment for market-making, such as:

- Payments for bona fide services, such as investment banking
- Reimbursements for registration fees imposed on the issuer by the SEC or states, or listing fees imposed on issuers by exchanges or SROs. Note that a reimbursement of the market maker's own Nasdaq fees is not an approved exception.
- Payments expressly provided for under rules of a national exchange

> ***Knopman Note:*** Promoters may not pay traders or market makers or provide them with any incentives (e.g., cash, securities, even college tuition for the traders' children) in exchange for maintaining or publishing quotes.
>
> If an issuer offers payment so a market maker will initiate quotations, the firm must refuse the payment but may still initiate quotations.

1.3.3 Market Maker Net Capital Requirements

The SEC requires market makers to meet certain net capital requirements to protect customers and other creditors in the event a broker-dealer has financial difficulties.

The minimum net capital is a function of the number of stocks the market maker is quoting, subject to a minimum net capital of $100,000, regardless of the number of stocks being quoted. For stocks with a bid price of $5 or less, the market maker must have a net capital of $1,000 per security, and for stocks with a bid price of more than $5, a market maker must have a minimum net capital of $2,500 per security.

Note, the minimum net capital for a qualified block positioner is $1,000,000.

> ***Knopman Note:*** Be sure to memorize the various minimum net capital requirements discussed in this section.

1.4 Regulation NMS Overview

The current regulatory framework governing equity trading is drawn heavily from Regulation NMS. Reg NMS is a series of initiatives designed to modernize and strengthen the National Market System (NMS) for equity securities. It's important to note that these rules only apply to **NMS stocks**, which are defined as equities that are listed or traded on a public exchange, such as NYSE or Nasdaq.

These rules address:

- **Order protection**—Obtaining the best price for customer order execution
- **Order access**—Ensuring fair and non-discriminatory access to all quotations in all markets
- **Pricing increments**—Setting the permissible pricing increments for quotes
- **Market data**—Publicly disseminating quote and pricing information

Each of these rules and regulations will be discussed in depth throughout the text.

> ***Knopman Note:*** Regulation NMS modernized and strengthened the regulatory structure of the United States equities market.

1.5 Nasdaq Market Center

Nasdaq is a global, publicly traded company that operates a variety of securities-related businesses, including the Nasdaq Stock Market, which is a registered national securities exchange. Broker-dealers that wish to be market makers on the Nasdaq Stock Market must register as Nasdaq members so they can use the Nasdaq Market Center trading system (referred to as the "system" for short) and other required Nasdaq services.

Once a firm is a Nasdaq member it can access the Nasdaq Market Center. This is Nasdaq's computer system, which allows electronic order execution and trade reporting. Nasdaq Rule 4751 further describes and defines the Nasdaq Market Center as:

1. An **order execution service** that enables participants to enter and update quotes, automatically execute transactions, and monitor and review transactions

2. A **trade reporting service** that submits **locked-in** trades to a registered clearing agency for clearance and settlement and transmits last-sale reports of transactions automatically
3. **Data feed(s)** that can be used to display and view quotes and displayed orders on the bid-and-offer side of the market for all price levels on an anonymous or attributable basis

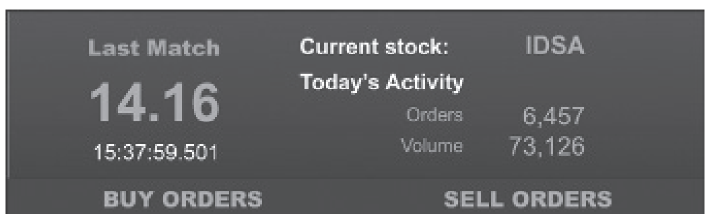
1.5.1 Nasdaq Levels of Service

A key aspect of the Nasdaq system is the electronic data feeds that supply investors, market participants, and market makers with real-time information on the markets. Nasdaq offers three levels of service that display different amounts of information and, for market makers, the ability to actually enter and modify their quotes. Each of the three levels—Level 1, Level 2, and Level 3—will be addressed.

1.5.1.1 Level 1 Service

Nasdaq Level 1 service, also called Nasdaq Basic, provides information on the best bids and offers on all US exchange-listed securities traded on Nasdaq. Thus, an investor can see the current best prices on a security. Level 1 service also provides information regarding the last sale (last match) for each security as reported to the FINRA/Nasdaq Trade Reporting Facility. Level 1 service is appropriate for retail investors or financial professionals not directly executing trades or requiring detailed market data, as it provides a limited view of the market.

Nasdaq Level 1 Service



SHARES	BID	ASK	SHARES
1,300	14.10	14.15	500

Level 1 quote for Industrial Services of America, Inc. (IDSA)
(Illustrative)

1.5.1.2 Level 2 Service

Nasdaq Level 2 provides all the data available in Level 1 (current prices and last-transaction information), plus market participant depth in Nasdaq, NYSE, and regional exchange-listed securities. **Market participant depth** shows the best quote of each market participant in the Nasdaq execution system (not just the highest bid and lowest ask). This type of data can be used by market participants to gauge supply, demand, and potential market movements as a result of liquidity or lack thereof.

Nasdaq Level 2 Service

Last Match
14.16
15:37:59.501

Current stock: IDSA
Today's Activity
Orders 6,457
Volume 73,126

BUY ORDERS			SELL ORDERS		
MPID	SHARES	BID	ASK	SHARES	MPID
NSDQ	900	14.10	14.15	200	TMBR
BCAP	100	14.10	14.15	200	NSDQ
WEDB	100	14.10	14.15	100	WEDB
CIBC	100	14.10	14.16	200	CIBC
JPMS	100	14.10	14.16	200	MSCO
MSCO	100	14.08	14.19	300	SBSH
CDRG	750	14.06	14.20	700	FBCO
GSCO	750	14.06	14.21	300	HDSN
TMBR	500	14.05	14.21	100	SUSQ

Level 2 quote for Industrial Services of America, Inc. (IDSA)
(Illustrative)

1.5.1.3 Nasdaq TotalView

Nasdaq TotalView is similar to Nasdaq Level 2 service but provides even more information. TotalView is Nasdaq's premier data feed and displays every quote and order at every price level in Nasdaq-, NYSE-, NYSE MKT-, and regional-listed securities on Nasdaq. Unlike Level 2, TotalView shows the quotes for all displayable orders in the Nasdaq execution system. Thus, a TotalView subscriber would see all of the quotes from a market maker at all price levels, not just each market maker's best price. TotalView includes Net Order Imbalance Indicator (NOII) data for the Nasdaq opening and closing crosses that can be used to participate in the market opening and closing. The opening and closing process will be discussed later.

Nasdaq TotalView

Last Match	Current stock:	IDSA
14.16	Today's Activity	
	Orders	6,457
15:37:59.501	Volume	73,126

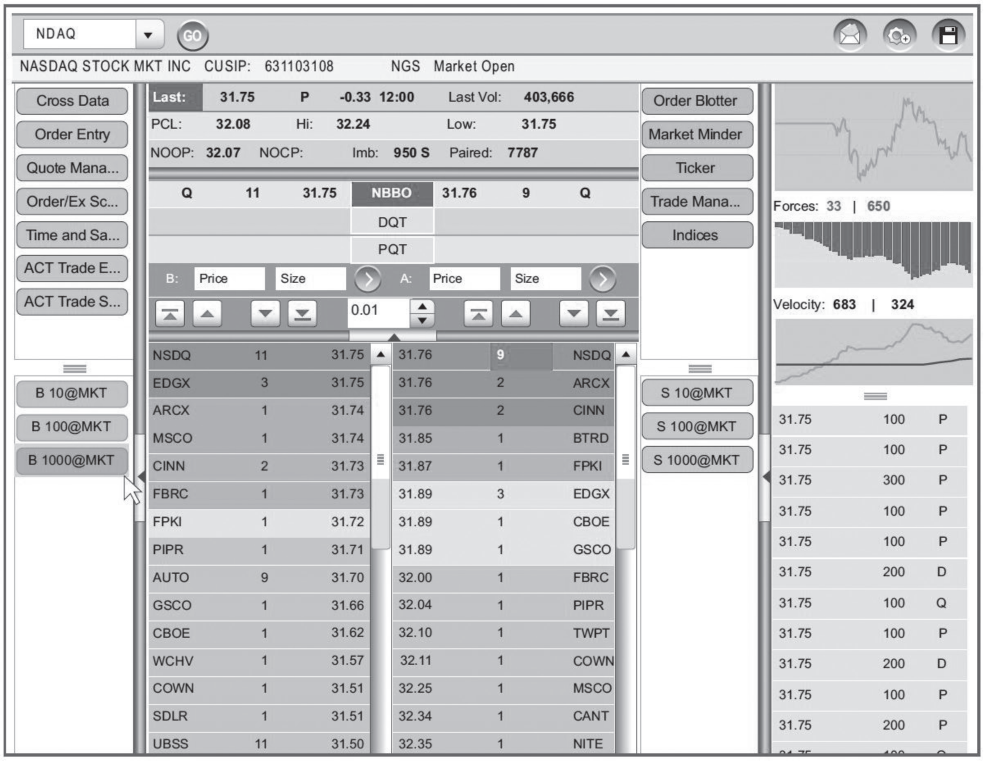
BUY ORDERS			SELL ORDERS		
MPID	SHARES	BID	ASK	SHARES	MPID
NSDQ	900	14.10	14.15	200	TMBR
BCAP	100	14.10	14.15	200	NSDQ
WEDB	100	14.10	14.15	100	WEDB
CIBC	100	14.10	14.16	200	CIBC
JPMS	100	14.10	14.16	200	MSCO
MSCO	100	14.08	14.19	300	SBSH
CDRG	750	14.06	14.20	700	FBCO
GSCO	750	14.06	14.21	300	HDSN
TMBR	500	14.05	14.21	100	SUSQ
UBSS	750	14.05	14.23	100	MLCO
NITE	750	14.04	14.23	100	UBSS
SUSQ	750	14.04	14.25	750	BCAP
MLCO	250	14.03	14.25	200	JPMS
GSCO	400	14.01	14.30	100	NITE
ALLN	250	14.01			

Nasdaq TotalView of Industrial Services of America, Inc. (IDSA)
(Illustrative)

1.5.1.4 Level 3 Service

Nasdaq Level 3 service is required for market makers. Level 3 service displays all the data from TotalView, and allows a market maker to adjust its quotes in the system, providing the mechanism to change quotes as investors change their view of a particular security. Thus, the quotes that are displayed on Level 1, Level 2, and TotalView are entered and modified by market maker firms that have subscribed to Level 3 service. Like TotalView, Level 3 allows firms to see the entire depth of the market.

Nasdaq Level 3 Service



Level 3 quote for Nasdaq OMX Group, Inc. (Illustrative)

KEY
NBBO: National Best Bid and Offer
NOOP: Nasdaq Official Opening Price
NOCP: Nasdaq Official Closing Price

1.6 Nasdaq Market Maker Requirements

Under Nasdaq Rule 4612, Nasdaq market makers can initiate market-making activities in additional securities by filing an application with Nasdaq. Registration is effective on the same day. For example, a market maker who wants to quote Microsoft (MSFT) for the first time could file an application to do so. Once the registration is effective, the market maker must enter its initial quote for the security within five business days. If it fails to do so, a new application must be submitted.

Knopman Note: Below is the general timeline a market maker is required to follow when it wants to begin quoting additional securities:

1. Market maker applies on Nasdaq to initiate quotes in the specific security.
2. Nasdaq generally approves request on the same day, at which point the market maker may begin entering quotes.
3. The market maker must begin quoting the security by no later than the open of trading five business days later.

The two key functions of market makers are to provide liquidity and price transparency in the market. Accordingly, Nasdaq Rule 4613 sets forth the obligations of all Nasdaq market makers relating to:

- Firm, two-sided quotes
- Order size
- Pricing
- Refreshing quotes

1.6.1 Market Participant Identifiers (MPIDs)

Each market maker's quote is displayed with a unique identifying market participant identifier (MPID). This MPID is a four-letter code assigned by FINRA to identify a member and enforce quote and pricing obligations. Each market maker will have a **primary MPID**, though firms can obtain **additional MPIDs** to display additional quotes or orders in the system.

For example, the primary MPID for Broker-Dealer ABC could be "ABCA," and an additional MPID for the same firm could be "ABCB." Additional MPIDs are often used to report dark pool or OTC trades.

A **dark pool** is a type of alternative trading system (ATS) that does not disseminate its quotes to the public. An **ATS** is a non-exchange trading system that matches the buy and sell orders of its subscribers.

Dark pools and ATSs will be discussed in greater detail later.

FINRA considers the issuance of multiple MPIDs to the same firm a privilege, not a right. The main requirements for members' use of multiple MPIDs are as follows:

- Members must identify one or more purposes and one or more systems for which each MPID will be used. The purpose must be legitimate—i.e., for a business or regulatory purpose.
- Members must use each MPID for the purpose(s) and on the system(s) identified.
- All requests for multiple MPIDs must be submitted in writing. Written approval for their use must be obtained from FINRA Operations.

- Any quotation for an OTC equity security, subsequently reported to a FINRA system as a trade, must use the same MPID for the quote and trade. This requirement helps market participants track transactions through the life of an order.

FINRA may withdraw a firm's additional MPIDs for any infraction. If a member loses the right to use its primary MPID, it is also prohibited from using any additional MPIDs for any purpose.

Knopman Note:

Q: Are the quotation requirements for a supplemental and primary MPID the same?

A: No. Supplemental MPID quotes do not need to be two-sided and can be withdrawn at any time, while the primary MPID must always have a firm, two-sided quote.

Q: Can a market maker execute and report one trade using different MPIDs?

A: No. A market maker must report a trade using the same MPID that was used to execute it. For example, a market maker has a primary MPID (e.g., MMAA) and an additional MPID (e.g., MMAAB). If the firm executes a trade using the additional MPID (MMAAB), it must report the trade using that same MPID (MMAAB).

1.6.2 Firm, Two-Sided Quotes

All quotes entered by market makers into the Nasdaq system must be firm quotes and automatically executable for the size (number of shares) and price indicated in the quoted bid or offer.

Market makers must be willing to buy and sell on a continuous basis during all regular market hours. This is called the **two-sided obligation**, the two sides being the bid and the offer. Note that there is no obligation to maintain quotes outside regular market hours—i.e., in the pre-market or after-market. Failure to maintain or honor firm quotes is called **backing away** and is a serious violation. Nasdaq regulators use automated market surveillance tools to scan the market in real time for backing-away violations.

Knopman Note: Market makers do not have an obligation to maintain quotes outside regular market hours.

Knopman Note: *Bona fide* means real or actual. Bona fide quotes (aka firm quotes) are quotes that a market maker must be able and willing to execute. Failing to do so is considered backing away. Complaints regarding backing away should be filed with regulators within five minutes. However, a failure to do so does not forgive the offending firm from liability.

The quote on both sides must be available for a required **normal trading unit**. After each trade execution, the member must refresh its quote. In general, a normal trading unit is for a minimum of **100 shares on both the bid and ask sides**—this 100-share unit is referred to as a **round lot**.

Knopman Note: Under Reg NMS Rule 602, market makers are expected to buy or sell a normal trading unit (typically 100 shares) in a quoted stock at its quoted price.

Q: When is a market maker not obligated to trade a security at its quote?

A: A market maker is not obligated to honor a firm quote in two cases:

1. Changing a quote—Before a counterparty's order was presented, the market maker entered a revised bid or offer, or
2. Executing a quote—At the time the counterparty's order was presented, the market maker was in the process of effecting a transaction and will be revising its quote.

Q: What if the market maker is quoting more than one type of security (e.g., equity and warrants) for the same issuer on Nasdaq? How do these rules apply?

A: If a market maker is quoting both equity and warrants on a particular issuer, the market maker is required to trade a normal trading unit for both securities: the equity and the warrants.

Example

The chart below shows three market makers' quotes.

Firm	Bid	Ask	Size (bid × ask)	Notes
MMAA	9.92	9.99	4 × 8	MMAA is willing to buy (bid) four round lots (400 shares) at $9.92 and willing to sell (ask) eight round lots (800 shares) at $9.99.
MMBB	9.89	9.96	12 × 3	MMBB is willing to buy 12 round lots (1,200 shares) at $9.89 and willing to sell three round lots (300 shares) at $9.96.
MMCC	9.90	10.04	1 × 5	MMCC is willing to buy one round lot (100 shares) at $9.90 and willing to sell five round lots (500 shares) at $10.04.

Market maker quotes are then organized in the Nasdaq system so that market participants can easily see who is willing to pay the most for the shares, called the best bid, and who is willing to sell their shares at the lowest price, the best offer. At any particular moment, these two best quotes, the best bid and the best ask, are called the **inside market** or the **national best bid/offer (NBBO)**. The system would display the quotes in the following manner:

MM	Size	Bid	Ask	Size	MM
MMAA	4	9.92	9.96	3	MMBB
MMCC	1	9.90	9.99	8	MMAA
MMBB	12	9.89	10.04	5	MMCC

The inside market, or NBBO, here is MMAA's bid of 9.92 and MMBB's ask of 9.96 with a size of 4 × 3. The best buyer (the buyer willing to pay the most) is MMAA with its bid of $9.92, and sales will be directed to MMAA first. Conversely, market participants seeking to buy shares would do so from MMBB, who is a seller (asking) at $9.96; buyers would first purchase from MMBB because it is offering the lowest price.

Knopman Note:

Q: In the example above, assume MMDD was bidding 9.88 on 15 round lots. How many shares must be bought in the open market before MMDD's bid can be executed?

A: MMDD's bid is inferior to those of MMAA, MMBB, and MMCC. Therefore, all three of those bids must be executed first: 4 Round Lots + 1 Round Lot + 12 Round Lots = 17 Round Lots (1,700 shares). Assuming no other bids were entered, MMDD's bid of 9.88 would be the best bid and eligible for execution.

As market makers change their quotes, the Nasdaq screen continuously and regularly updates to reflect new quotes coming into the market and existing quotes being removed—because they were executed against, or because a market maker changed its quote for the security. For example, if MMDD entered a new quote of 9.94–9.99 7 × 6, the system would update to display this new data.

Note	MM	Size	Bid	Ask	Size	MM	Note
New best bid. MMDD is a buyer of up to 700 shares at $9.94.	MMDD	7	9.94	9.96	3	MMBB	The existing best offer remains MMBB asking $9.96 for three round lots.
	MMAA	4	9.92	9.99	6	MMDD	There are now a total of 14 round lots available at $9.99 from MMAA and MMDD.
	MMCC	1	9.90	9.99	8	MMAA	
	MMBB	12	9.89	10.04	5	MMCC	

Upon execution, a quote is reduced by an amount equal to the size of that execution. For example, if a market order to sell two round lots was entered into the system, it would be executed against MMDD's bid of $9.94, and MMDD's size would be automatically reduced to five round lots to reflect the 200 shares that were acquired against the market order.

A **market order**, as will be discussed later, is an order to execute immediately against the best available price. A market order to sell will execute against the best bid, thereby guaranteeing execution.

1.6.3 Order Size

Order size refers to the number of shares associated with a quote or an order. The normal unit of trading (a round lot) is 100 shares. As indicated above, all market makers must fulfill their two-sided obligations by offering both bid and ask quotes of at least one round lot. After an execution, the market maker must ensure that it continues to offer a two-sided quote. That is, if a market maker's quote is executed against, the market maker needs to enter a new quote into the system.

Terms related to order size include:

Order Size	Description
Normal Unit of Trading	Round lot size for the security (generally 100 shares)
Mixed Lot	An order that is for more than a normal unit of trading but not a multiple thereof (e.g., 286 shares)
Odd Lot	An order that is for less than a normal unit of trading (e.g., 12 shares)

Knopman Note: Here are a few points to know about quote sizes:

On the Nasdaq system, allowable order sizes are between one and 999,999 shares. Odd-lot orders (fewer than 100 shares) are permitted, but orders for fractional shares are not.

The displayed size for a quote is in round lots of 100 shares. A customer's order for a mixed lot (e.g., 378 shares) would be entered into the system and displayed as three round lots (300 shares), although all the shares (378) would be available for execution.

A market maker's quotation obligation requires it to be prepared to trade at least one normal unit of trading, which is defined as 100 shares.

- **Example:** A market maker displays a quote of 32.10 × 32.15. The assumption is that the bid and offer are available for 100 shares. A customer seeking to buy 300 shares at 32.15 could expect execution of 100 shares at 32.15 from this market maker.

1.6.4 Minimum Quote Increments

The minimum quote increments for NMS stocks, including those quoted on Nasdaq, are:

- \$0.01 (one cent) for quotations of \$1 or above
- \$0.0001 (one hundredth of a cent) for quotations below \$1

An example of permissible quote increments for an NMS stock is below:

Stock Price	Minimum Increment	Example
≥ \$1	\$0.01	NBBO is \$13.12 × \$13.19. A new bid could be entered at \$13.13, but not at \$13.125.
< \$1	\$0.0001	NBBO is \$0.8201 × \$0.9823. A new bid could be entered at \$0.8202, but not at \$0.82015.

Knopman Note: For listed stocks, quotes of four decimals are only permitted for stocks trading for less than \$1.

1.6.5 Price Improvement

Any potential price improvement resulting from an execution in the system shall accrue to the taker of liquidity. The **taker of liquidity** is the party that crosses the spread to execute an order against an existing quote. This rule rewards parties that come into the market to execute orders.

Example

DEF stock is quoted .75–.78 18 × 14. A customer subsequently enters an order to sell 800 shares at .72. In this case, the order would be executed at the best bid of .75. Even though the customer was willing to sell for a lower price, they get the price improvement because they are the taker of liquidity.

Knopman Note: Any potential price improvement goes to the taker of liquidity, which is the party that crosses the spread to execute an order against an existing quote.

1.6.6 Pricing Obligations for New Quotes—Designated Percentage

The quotes market makers enter for NMS stocks during regular trading hours must meet certain pricing guidelines. All quotes must be within a **designated percentage** away from the current national best bid/offer (NBBO). If there is no NBBO, the pricing obligation references the **last reported sale**. The idea is that market makers must enter quotes that are reasonably related to the security's market value. The designated percentages are as follows:

- **8% for Tier 1 securities**, which include S&P 500 or Russell 1000 stocks and some exchange-traded products (ETPs). This universe consists of approximately 1,000 large-cap stocks.

- **28% for Tier 2 securities** consisting of NMS stocks that are not Tier 1 with a price equal to or greater than $1
- **30% for Tier 3 securities** consisting of NMS stocks that are not Tier 1 with a price less than $1
- **30% for rights and warrants**

Example

The NBBO for a Tier 1 security is $20 × $20.10. The pricing obligations set the outside bounds of where a market maker can enter new quotes. No bids may be entered below $18.40 and no offers entered above $21.70. All existing quotes must be adjusted once they are 9.5% away from the NBBO.

Entering New Quotes and Designated Percentages			
Highest permissible offer 8% *higher* than the current best offer Offers cannot be entered above $21.70.	$20.10 × 108% = $21.70 **$21.70**		
Current NBBO	**Bid**	×	**Offer**
	$20	×	**$20.10**
Lowest permissible bid 8% *lower* than the current best bid Bids cannot be entered below $18.40.	$20 × 92% = $18.40 **$18.40**		

For Tier 1 securities, the pricing obligations change during the **market open period** (9:30 am–9:45 am) and **market close period** (3:35 pm–4:00 pm). During these periods, the designated percentage for Tier 1 securities is increased to 20%, allowing firms to enter quotes further away from the NBBO, as there is often greater volatility and price movement at these times.

> ***Knopman Note:*** Under the designated percentage rule, new quotes must be entered within 8% (for Tier 1 securities) of the NBBO. Note however, that from 9:30am–9:45am (market open) and 3:35pm–4:00pm (market close), the designated percentage is increased to 20%, as there is often greater volatility and price movement at these times.

To summarize: The designated percentages set the limit for how low bids may go and for how high offers may go. They do not preclude market makers from quoting prices that are closer to the NBBO than the specified levels.

1.6.7 Pricing Obligations for Existing Quotes—Defined Limit

After a market maker enters a quote in the system in accordance with the designated percentages discussed above, the quote must remain within a certain percentage of the NBBO. The limits for quotes that have already been entered in the system are called the **defined limits** and allow for slightly more separation between the NBBO and previously entered quotes as compared to the entry of new quotes. If a change in the NBBO causes a market maker's existing quote to move outside the defined limit, the quote must be updated. The defined limits are:

- **9.5% for Tier 1 securities** in the S&P 500 or Russell 1000 Index and also in some exchange-traded products (ETPs). At the market open and close, this increases to 21.5%.
- **29.5% for Tier 2 securities** consisting of NMS stocks that are not Tier 1 with a price equal to or greater than $1
- **31.5% for Tier 3 securities** consisting of NMS stocks that are not Tier 1 with a price less than $1
- **31.5% for rights and warrants**

Example

The NBBO for a Tier 1 security is $20 × $20.10. The pricing obligations set the outside bounds of where a market maker can enter new quotes. No bids may be entered below $18.40 and no offers entered above $21.60.

<table>
<tr><th colspan="2"></th><th>Bid</th><th>Offer</th><th colspan="2"></th></tr>
<tr><td colspan="2">National Best Bid (NBB)</td><td>20.00</td><td>20.10</td><td colspan="2">National Best Offer (NBO)</td></tr>
<tr><td colspan="2" rowspan="3"></td><td>19.54</td><td>20.75</td><td colspan="2" rowspan="2"></td></tr>
<tr><td>19.12</td><td>20.99</td></tr>
<tr><td>18.65</td><td>21.70</td><td>Designated percentage</td><td>No new offers may be entered above the designated percentage.
21.70 = 20.10 × (1 + 0.08)</td></tr>
<tr><td>No new bids may be entered below the designated percentage.
18.40 = 20.00 × (1 – 0.08)</td><td>Designated percentage</td><td>18.40</td><td>22.00</td><td>Defined limit</td><td>All existing offers must be adjusted once they move above the defined limit.
22.00 = 20.10 × (1 + 0.095)</td></tr>
<tr><td>All existing bids must be adjusted once they move outside the defined limit.
18.10 = 20.00 × (1 – 0.095)</td><td>Defined limit</td><td>18.10</td><td colspan="3"></td></tr>
</table>

Knopman Note: New quotes entered by a market maker must be within a designated percentage (typically 8%) of the NBBO. Once the quote is entered, it must remain within defined limit of the NBBO (typically 9.5%). Importantly, the designated percentage rule applies to new quotes, while the defined limit rule applies to existing quotes.

1.6.8 Nasdaq Market Maker Peg Order

Nasdaq offers a market maker peg (MM peg) order to help market makers meet their obligations to enter and display quotes within a specific percentage of the NBBO as required under Nasdaq Rule 4613. The benefit of the MM peg order is that as market prices fluctuate, quotes can be automatically adjusted by the system to stay within the defined limits. All MM peg orders must be displayed, be attributable (discussed shortly), and have a limit price.

When entering an MM peg, the quote will be adjusted to ensure it is within the designated percentage away from the NBBO. Once entered, the MM peg will also automatically adjust if the quote reaches the defined limit away from the NBBO, and if the market maker wishes, the quote can be adjusted with an offset so that the adjustment results in an order that is closer to or further from the NBBO than the automatic adjustment would provide. If a requested offset causes the MM peg quote to fall outside the permissible designed limit, the order is cancelled.

Upon execution, a market maker must submit a new market maker peg order to maintain its quote. The order will not be automatically re-entered by Nasdaq.

Example

An S&P 500 stock is currently quoted at 10.00–.05. A market maker peg order to buy would automatically be priced 8% lower than the best bid, at 9.20. Thereafter, if the best bid moves higher, the MM peg order will be adjusted so that it always stays within 9.5%, equal to the defined limit. For example, if the best bid moves to 10.50, the MM peg would adjust to 9.51, exactly 9.5% below the best offer.

If the MM peg was entered with an offset amount of $0.05, it would have been priced at 9.25, 0.05 higher than the designated percentage away from the best bid.

1.7 Entry of Orders

Nasdaq market makers and Nasdaq ECNs can enter quotes into the Nasdaq system from 4:00 am–8:00 pm, ET. Quotes will be processed based on the specific instructions and criteria that the Nasdaq market maker or Nasdaq ECN gives when entering quotes.

> ***Knopman Note:*** Unless stated otherwise, all times mentioned in this manual are in Eastern Standard (ET). This designation will appear throughout as a reminder.

1.7.1 Types of Orders

A **system order** is an order entered into the system for display and available for execution as appropriate. All displayed orders on Nasdaq must be limit orders. That is, they must specify a price. Orders are defined under Nasdaq Rule 4755.

Order criteria restrict when and how the order can be executed. System orders can be designated in a variety of ways.

1.7.1.1 Attributable Orders

An **attributable order** indicates the MPID of the market maker placing the order next to its quote.

1.7.1.2 Non-Attributable Orders

Non-attributable orders and quotes are anonymous. Rather than being displayed on Nasdaq under the market maker's MPID, non-attributable orders are indicated with the MPID "NSDQ." Market participants do not know the identity of the buyer or seller, just the price and size of the quote.

> ***Knopman Note:*** A firm wishing to display an attributable quote will use its assigned primary or supplemental MPID. A firm wishing to display a non-attributable quote will use the MPID NSDQ. Non-attributable quotes and orders are anonymous.

1.7.1.3 Reserve Orders

Nasdaq offers a reserve feature that allows participants to display part of the full size of an order while holding the rest of the order as undisplayed (i.e., in reserve). The reserve size is available for execution but is not displayed on Nasdaq. Anytime a displayed size is reduced to less than one round lot, it will be refreshed from reserve, with the replenishment size indicated by the firm. Once the reserve shares are moved to a displayed quote, the system will generate a new time stamp for the quote.

MM	Bid	Size	Reserve	Note
MMDD	9.94	7	13	MMDD is a buyer of up to 2,000 total shares at $9.94 that is only displaying 700 shares. The remaining 1,300 shares are held on reserve but are available for execution.
NSDQ	9.92	4	0	This is a non-attributable anonymous quote.
MMCC	9.90	1	0	

Example

MMAA is bidding $10.47 on 800 shares and is holding an additional 300 in reserve. The firm is willing to buy a total of 1,100 shares at .47, but only 800 can be seen by potential counterparties. Therefore, a seller offering 1,100 shares will be able to execute the entire order (the 800 displayed and the 300 on reserve).

1.7.1.4 Non-Displayed Orders

Non-displayed orders are available for execution but are not displayed in the system. Non-displayed orders interact identically as displayed orders but receive a lower priority and are not visible to other market participants.

1.7.2 Entry and Display of Quotes and Orders

Under Nasdaq Rule 4756, participants can enter quotes or orders into the system to trade for their own accounts or for their clients' accounts. Orders, however, must be entered and displayed in a certain manner:

- Participants can enter multiple orders at a single price level or at multiple price levels. Each order shall indicate the amount of reserve size, if any.
- The system will time-stamp each order, and orders will be processed in time priority (i.e., the earliest orders have priority).
- Any order that participants enter into the system can subsequently be modified or cancelled while the system is open (4:00 am–8:00 pm).
    - A modification of price or an increase in size will result in the order receiving a new time stamp and lower priority.
    - A modification that only reduces share size, or that modifies a sell order as long, short, or short exempt (discussed shortly), will not affect the priority of the order.

1.7.2.1 Book Processing

The Nasdaq system will execute orders in the manner defined in Nasdaq Rule 4757. First, orders are executed based on price priority (e.g., higher bids are executed before lower bids; lower offers are executed before higher offers). For orders at the same price, earlier orders will receive execution first, i.e., time priority, based on the specific type and instruction. If price and time are the same, then the larger order is executed first.

> ***Knopman Note:*** Orders are executed based on price priority. For example, a customer limit order to buy at $15 entered at 11:00 am would have priority over another customer limit order to buy at $14.99 entered at 10:55 am.

> ***Knopman Note:*** If two limit orders are entered at the exact same time at the exact same price, the larger of the two orders will have priority and be filled first.

The priority of order types is as follows:

1. Displayed orders
2. Non-displayed orders, including shares in reserve
3. The discretionary portion of discretionary orders (discussed later)

In other words, at a particular price, all displayed orders will be filled earliest to latest. Once all displayed orders are gone, the system will execute non-displayed orders earliest to latest, and once these are exhausted, all discretionary orders, earliest to latest.

> ***Knopman Note:*** Displayed orders will have priority over non-displayed orders at the same price.

Progress Check

1. Once Nasdaq approves a market maker's request to quote additional securities, the market maker must begin quoting the security no later than:

   A. the open of trading the next business day.
   B. the close of trading the next business day.
   C. the open of trading five business days later.
   D. the close of trading five business days later.

2. For an attributable limit order to buy 100 shares at $43.50 per share, which of the following would not be displayed?

   A. Order price
   B. Order size
   C. Customer's name
   D. Participant's MPID

3. ABC stock is currently quoted as 10.72-10.75 12 x 15. A customer subsequently enters an order to buy 300 shares at $10.76. The order:

   A. will be executed at $10.72.
   B. will be executed at $10.75.
   C. will be executed at $10.76.
   D. will not be executed.

4. Trader B enters a system order with instructions to display only a fraction of an entire order. The order must include the size not displayed, which is called the:

   A. supplemental size.
   B. reserve size.
   C. mixed lot.
   D. odd lot.

5. Assuming equally priced trading interests, which type of order is executed first (in order)?

   A. Discretionary
   B. Non-displayed
   C. Supplemental
   D. Displayed

Progress Check—Solutions

1. **(C)** Once Nasdaq approves a market maker's request to quote additional securities, the market maker must begin quoting the security no later than the open of trading five business days later.
2. **(C)** Attributable orders are designated for display by price and size, along with the participant's MPID.
3. **(B)** Any potential price improvement goes to the taker of liquidity, which is the party that crosses the spread to execute an order against an existing quote. In this case, the order would be executed at the best offer of $10.75. Even though the customer was willing to buy for a higher price, they get the price improvement because they are the taker of liquidity.
4. **(B)** Reserve orders allow participants to display only a fraction of the entire order. The order is marked to show the number of shares included in the order but not displayed. This is known as the reserve size.
5. **(D)** The system executes equally or better-priced trading interests in price/time priority in this order: displayed, non-displayed, discretionary, supplemental.

1.8 Terminating Quotes

As discussed, Nasdaq market makers have an obligation to make continuous, firm, two-sided quotes. The circumstances under which market makers may stop quoting a security are subject to both FINRA and Nasdaq regulations.

1.8.1 Voluntary Termination

Under Nasdaq Rule 4620, a Nasdaq market maker may voluntarily terminate registration on a security-by-security basis by withdrawing its two-sided quote from the Nasdaq Market Center. Once registration is terminated, a market maker cannot re-register as a market maker in that same security for 20 business days.

If the two-sided quote for a security is voluntarily withdrawn for reasons beyond the market maker's control, it is not considered a termination of registration. These reasons include:

- A corporate action related to a dividend, payment, or distribution
- A trading halt in the security

In these cases, registration will not be terminated if the market maker:

- Enters a new two-sided quote before the market closes on the same day
- Enters a new two-sided quote on the day when trading resumes, after a halt
- Enters a new two-sided quote on the next regular trading day after the day on which the market maker is eligible to enter a two-sided quote, provided the market maker requests to begin quoting during the next regular market session and Nasdaq approves the request

Example

A stock is halted on Monday and the market maker terminates its two-sided quote. The stock is opened for trading on Wednesday. The market maker may resume a two-sided quote on Wednesday. Alternatively, the market maker may submit a request on Thursday to begin making a two-sided quote and, with Nasdaq permission, begin making a market on Thursday. If the market maker does neither, the failure to reinstate quotes will be deemed a voluntary termination with the 20-business-day waiting period.

A voluntary withdrawal from a two-sided quote in one security does not affect any other securities in which the same member makes a market.

> ***Knopman Note:*** A Nasdaq market maker that terminates quotations in a stock cannot re-register as a market maker in that same stock for 20 business days. Prior to a voluntary withdrawal, a market maker is not required to submit additional filings or provide notice.

1.8.2 Excused Withdrawal

Nasdaq Rule 4619 permits a market maker to seek an excused withdrawal by contacting Nasdaq MarketWatch prior to withdrawing its quote.

Excused withdrawal status may be granted for up to **five business days** should circumstances require it. Circumstances under which an excused withdrawal will be granted include:

- Religious holidays, provided the application is received at least one business day in advance
- Vacation, **for firms with three or fewer Nasdaq terminals**, provided the application is received at least one business day in advance and includes a list of securities from which the firm plans to withdraw
- Equipment failure

Excused withdrawals may also be granted for firms that are market makers and engage in investment banking activities, for reasons such as:

- Possessing news regarding a merger or other insider information
- Underwriting activities under Regulation M

In these two cases, the withdrawal may be for shorter or longer than five days, depending on the specific circumstances.

> ***Knopman Note:*** A market maker that comes into possession of inside information should seek an excused withdrawal due to legal requirements (i.e., to avoid trading on the basis of inside information). The MM may be able to engage in passive market-making, as discussed later.

For legal or regulatory requirements, a market maker may be excused for up to **60 days** if it submits all appropriate documentation.

> ***Knopman Note:*** For up to 60 days, a market maker can seek an excused withdrawal for legal or regulatory reasons, such as an involuntary termination of a clearing agreement.

If a market maker needs to withdraw from the market due to its own system or technical malfunctions, it must notify Nasdaq Market Operations rather than Nasdaq MarketWatch. Nasdaq Market Operations will subsequently grant the withdrawal for up to five business days.

> ***Knopman Note:*** The number of days a market maker can be excused are as follows:
>
> - Five days—Due to equipment malfunction, vacation, religious holiday
> - 60 days—For legal or regulatory reasons
> - No specific time limit—If engaged in investment banking activities

1.8.3 Accidental Withdrawal

A market maker that accidentally removes itself from a stock can apply for relief from Nasdaq. Accidental withdrawals can happen from something as simple as a keystroke error.

A Nasdaq market maker can apply for immediate reinstatement provided that it notifies Nasdaq MarketWatch within one hour of the termination. MarketWatch will examine the application for reinstatement and the circumstances of the error to determine whether the withdrawal was indeed a bona fide mistake.

Furthermore, market makers are limited to the following number of reinstatements per year:

Names Quoted	Reinstatements Per Year
Fewer than 250 stocks	2
251–499 stocks	3
500 or more stocks	6

Additional factors that Nasdaq will consider when deciding whether to reinstate the market maker include:

- Market conditions at the time of withdrawal
- Similarity in ticker to the name the market maker actually intended to withdraw from
- Whether the market maker's withdrawal reduced exposure to risk
- The market maker's timeliness in notifying MarketWatch of the error

1.9 Prohibition from Locking or Crossing Quotations in NMS Stocks

During normal market hours (under FINRA Rule 6240), market makers are prohibited from entering any quotations that lock or cross the market. A **locked market** is one in which the inside bid (highest bid) and the inside offer (lowest asked price) are the same. A **crossed market** is one in which the inside bid is higher than the inside offer.

Example

The market for ABC is as follows:

ABC Common Stock					
MM	Size	Bid	Offer	Size	MM
MM2	7	29.75	30.00	3	MM1
MM1	4	29.73	30.02	5	MM3
MM4	15	29.63	30.13	6	MM4
MM3	12	28.93	30.18	8	MM2

Therefore, the inside market for ABC is 29.75–30.00 7 × 3.

Case 1: Locked Market—If Market Maker 2 (currently 29.75–30.18 7 × 8) updates its quote to 30.00–30.13, the new inside market would be 30–30, a locked market. Instead of locking the market, the system would execute, and MM2 would buy shares at 30 from Market Maker 1 as opposed to putting a quote in the system that it is willing to buy shares at 30.

Case 2: Crossed Market—If MM2 enters a 30.05 bid, it would cross the market, as the bid of 30.05 is greater than the offer of 30. Instead of crossing the market, the system would execute the order against the best offer. As discussed earlier, the taker of liquidity (i.e., the order that crosses the spread)—in this case, the buyer at 30—would get the price improvement, and the order would execute at $30 instead of $30.05.

Market participants have an obligation to avoid entering quotes that lock or cross the markets. A firm that locks or crosses the market on a regular basis may be found in violation of its duties and responsibilities as a market maker.

> ***Knopman Note:*** Firms may not submit locking or crossing quotes—instead, such quotes should be treated as marketable and executed.
>
> E.g., the NBBO is 9.50 × 9.55. If a customer places a sell limit at 9.49, the firm should treat the order as a market order and execute against the 9.50 best bid.

There are a few exceptions whereby a market maker is permitted to enter a quote that would lock or cross the market:

- The market center showing the locked quote is experiencing a system or display malfunction.
- The quote is displayed at the time the best bid is above the best offer.
- The quote is entered as an intermarket sweep order (discussed later).

Example

Market Maker A could enter a quote that would lock Market Maker B if it has tried to fill against Market Maker B's quote multiple times and Market Maker B did not respond.

> ***Knopman Note:*** Be sure to review these exceptions for locked quotes.

1.10 Nasdaq Crossing Process

Each trading day, the Nasdaq system will set the price at which securities will begin and end trading—Nasdaq's process to do so is called the **opening or closing cross**. The **crosses** are performed electronically by software that analyzes and evaluates all orders that market participants have entered prior to the start or end of the trading day.

A key aspect of the cross is that it allows market participants to view order imbalances prior to the open or close and, should they so desire, enter offsetting orders to buy or sell shares. For example, at the open, the system may show that there are more buyers than sellers, causing market participants, seeing that it is a **sellers' market** (because there are more buyers than sellers), to enter the market as sellers to meet the demand. Conversely, if there are excess sell orders, buyers will be more likely to enter the market to buy at lower prices.

The cross process ensures that the opening and closing prices accurately reflect prevailing prices at that time. Accordingly, the cross generates opening and closing prices widely used as benchmarks throughout the industry, including in the Russell Indexes, Standard & Poor's, and Dow Jones for Nasdaq-listed securities.

All nationally listed securities, including securities listed on Nasdaq, NYSE, and NYSE Arca, are eligible to participate in the Nasdaq opening and closing crosses. Rules for the crossing process are set forth in Nasdaq Rules 4752 and 4754.

1.10.1 Nasdaq Opening Cross

The opening cross determines the opening price for each individual stock. The system accumulates and publicly releases data on the buy and sell interest in the stock two minutes before the market open.

The opening cross helps prevent large price movements shortly after the market open—one of the most active trading times—because the opening price takes into account all interest on both sides of the market.

Each morning the market is open, Nasdaq will publish the Nasdaq Official Opening Price (NOOP) for Nasdaq-listed securities. The timeline for the opening cross is below:

Opening Cross	
4:00 am	The Nasdaq system opens and order entry begins, including limit-on-open (LOO), market-on-open (MOO), and opening-imbalance-only (OIO) orders.
9:28 am	Nasdaq disseminates opening cross order imbalance information every second between 9:28 and 9:30 am, ET. Market participants may seek to balance the imbalance with OIO orders.
9:30 am	The opening cross occurs and trading begins.

Knopman Note: Here is a summary of the types of crossing orders and an example of each.

If a market maker wants to buy shares at the opening price and ensure that it receives a particular price or better, the MM should enter a limit-on-open (LOO) order.

E.g.: Buy LOO $28 means that if the market opens at $28 or less, the order will be filled. If the market opens above $28, the order will not be filled.

If a market maker wants to buy shares at the open whatever the opening price, the MM should enter a market-on-open (MOO) order.

E.g.: A buy MOO order will be executed at the opening price, whatever that may be ($22, $28, $34, etc.). A MOO guarantees execution at the open, but offers no guarantee as to price.

An imbalance-only (IO) order is a priced order to be executed at the opening or closing price. An IO order's price will be adjusted as the cross occurs, subject to the price instruction.

E.g.: If an IO buy order is entered with a price of $21, and the highest bid is $20.95, the IO order is repriced to $20.95. If the highest bid drops further, to $20.89, the IO order will be repriced again so it can be executed at the best bid. If, however, the highest bid moves to $21.15, the IO order will not be repriced above the $21 price instruction and will not execute in the cross.

Knopman Note: Here are some additional important notes about opening cross order types:

- MOO, LOO, and IO orders may not be cancelled or modified at 9:28 am or later.
- IO orders are not guaranteed execution.

1.10.2 Nasdaq Closing Cross

The closing cross works similar to the opening cross, but occurs at the market close each day. The closing cross will resolve and address order imbalances that have arisen during the day, resulting in a fair and transparent closing price.

The closing cross sets the Nasdaq Official Closing Price (NOCP) for Nasdaq-listed securities. NOCPs are used as benchmark prices throughout the industry for calculating mutual fund net asset values (NAVs) and index valuations.

Closing Cross	
4:00 am	The Nasdaq system opens and order entry begins, including limit-on-close (LOC), market-on-close (MOC), and closing-imbalance-only (CIO) orders.
3:55 pm	Nasdaq disseminates closing cross order imbalance information every second between 3:55 and 4:00 pm, ET. Market participants may balance imbalances with CIO orders.
4:00 pm	The closing cross occurs and the normal trading day ends.

At 3:55 pm, Nasdaq begins the closing auction process and disseminates information about any order imbalance, or unpaired shares, on the closing book through its Net Order Imbalance Indicator (NOII), along with an indicative closing price. At exactly 4:00 pm, the closing book (containing the orders that have been entered to be executed specifically at the close—i.e., MOC, LOC, and CIO) and the Nasdaq continuous book (normal trading during the trading day) are brought together to create the Nasdaq closing cross. The closing cross price is distributed to the industry and newswires immediately after its occurrence.

> ***Knopman Note:*** Market-on-close (MOC) orders will be executed at the closing price, regardless of their time of entry.

> ***Knopman Note:*** Opening and closing cross orders can never be noted as all-or-none.

1.10.3 Nasdaq Opening and Closing Cross Order Types

To facilitate trading at the open and close and enhance market participants' ability to offset imbalances, the system provides order types specifically for the opening and closing crosses. Orders are executed according to price/time priority. These order types include:

Opening Cross		Closing Cross	
Market-on-Open (MOO)	On-open orders specifically requesting execution at the opening price **Cannot be entered, cancelled, or modified after 9:28 am.**	Market-on-Close (MOC)	On-close orders specifically requesting execution at the closing price **At and after 3:55 pm:** Orders cannot be entered, cancelled, or modified for any reason.
Limit-on-Open (LOO)	A type of limit order to buy or sell shares at the market open if the price meets the limit condition; this type of order is good only for the market opening and does not last for the whole trading day. **Cannot be entered, cancelled, or modified after 9:28 am.**	Limit-on-Close (LOC)	A type of limit order to buy or sell shares at the market close only if the closing price is better than the order's limit price **Up until 3:55 pm:** LOC orders can still be entered until 3:58 pm, but existing orders can no longer be cancelled or modified after 3:55 pm. **At and after 3:58 pm:** Orders cannot be entered, cancelled, or modified for any reason.
Opening-Imbalance-Only (OIO)	Provides liquidity intended to offset on-open orders during the opening cross **Cannot be cancelled or modified after 9:28 am except to increase the number of shares.**	Closing-Imbalance-Only (CIO)	Provides liquidity intended to offset on-close orders during the closing cross **At and after 3:58 pm:** Orders may be submitted, but cannot be cancelled or modified for any reason.

Knopman Note: A market-on-open order, or MOO, may be entered between 4:00 am and immediately prior to 9:28 am.

After designated times, 9:28 for the open and 3:55 for the close, traditional market and limit orders for the cross are no longer permitted. Investors wishing to participate in the cross during those times can enter imbalance-only orders. Imbalance-only orders will execute only if there is an imbalance on the opposite side of the market. For example, an imbalance-only order to buy will execute against a sell-side imbalance. Another way to think of imbalance-only orders is that they are late market orders, meaning they receive a lower priority.

Knopman Note:

Q: What is the purpose of a closing- or opening-imbalance-only order?

A: The purpose and effect of entering a closing-imbalance-only (CIO) order is to balance the closing cross (i.e., provide liquidity to offset on-close orders). The same is true for opening-imbalance-only (OIO) orders but during the opening cross.

Q: When can imbalance-only orders be entered, cancelled, or modified?

A: OIO orders may be entered between 4:00 am, ET, until the execution of the Nasdaq opening cross at 9:30:00 am. After 9:28 am, they may not be cancelled or modified.

CIO orders may be entered between 4:00 am, ET, until the execution of the Nasdaq closing cross at 4:00 pm. After 3:58:00 pm, they may not be cancelled or modified.

Q: How are imbalance-only orders executed?

A: Imbalance-only orders can be executed only if unfilled orders remain on the opposite side of the market. For example, an imbalance-only order to buy will be executed only in the event of a sell-side imbalance.

1.10.4 Net Order Imbalance Indicator (NOII)

The table below shows an example of some of the information disseminated in the NOII. The table indicates the size and side of the imbalance (buy, sell, or none) and the clearing prices, giving a sense of where the stock might open or close.

Time	Symbol	Paired Shares	Imbalance Shares	Imbalance Side	Current Reference Price	Far Clearing Price	Near Clearing Price
9:28:00	AMZN	300,000	3,500	B	370.51	370.52	370.52
9:28:00	AAPL	225,000	9,000	S	125.78	125.79	125.79
9:28:00	MSFT	475,000	0	N	47.53	47.54	47.54
9:28:05	AAPL	256,000	7,000	S	125.79	125.80	125.80
9:28:05	MSFT	525,000	11,000	B	47.54	47.55	47.55
9:28:05	AMZN	355,000	3,500	B	370.52	370.53	370.52

The **current reference price** is the price that will minimize any imbalance. Nasdaq publishes both a near clearing price and a far clearing price. The far clearing price takes into account only on-open or on-close orders, whereas the near clearing price also reflects orders in the Nasdaq Market Center (e.g., traditional market and limit orders).

1.10.5 Nasdaq Halt Crosses

A **halt cross** is the process for determining the price when a halted security is re-opened. The process is substantially similar to the opening cross in that it attempts to increase transparency by disseminating timely information to investors on imbalances prior to the resumption of trading. It allows all investors to enter orders and participate in price discovery during a halt, confident that fair executions will begin at a price that maximizes volume and reflects market supply and demand.

After trading is halted due to an imbalance, there are two distinct periods:

- **Quote-only**—Nasdaq accepts quotes and order entry, while disseminating indicative clearing prices and imbalance information through the Net Order Imbalance Indicator (NOII). Orders can be placed and cancelled, but no executions may take place. The quote-only period usually lasts for five minutes. However, high volatility during this period may trigger a one-minute automatic extension. For this purpose, high volatility is considered a price movement of 10% or 50 cents, whichever is greater.
- **Trading resumption**—An indicative clearing price is the price at which it's determined the trade-opening book would match the most quotes and orders. Paired trades (buys and sells) are matched for execution at this price. The imbalance is the total shares that cannot be matched. Trading resumes with an execution of a bulk order at the indicative clearing price, and a bulk trade is reported to the appropriate trade reporting facility. Regular trading resumes after the cross.

> ***Knopman Note:*** Below is the halt cross timeline:
>
> Phase 1 (quote-only period): A MM can accept and enter customer quotes and orders.
>
> Phase 2 (resume trading): The halt cross sets the re-opening price, orders execute, and regular trading begins.
>
> During a trading halt, a market order that is received should be held by the broker-dealer until trading resumes with a halt cross process.

1.11 Alternative Display Facility (ADF)

FINRA's Alternative Display Facility (ADF) is a quotation and trade reporting facility. In many respects, it is similar to Nasdaq, though important differences exist.

Both Nasdaq and the ADF collect and display quotations and provide a trade reporting facility. Market makers, therefore, can choose which service to use to access quotes and report transaction data. And, just as Nasdaq has rules its market makers must follow, so does the ADF.

The biggest difference between the two is that the ADF does not provide order routing or execution—firms using the ADF must have their own electronic trading or execution systems to effect transactions. In this regard, the ADF is an alternative to exchanges, providing market makers and electronic communications networks (ECNs) the ability to process, display, and distribute quotes and orders in all NMS securities, provided they have their own ability to execute transactions. The ADF also:

- Reports transactions in NMS securities for public dissemination
- Executes trade comparisons (i.e., trade reporting)
- Delivers real-time data to FINRA for regulatory compliance and enforcement

The ADF operates from 8:00 am–6:30 pm, ET, supporting pre-opening (before 9:30 am) and after-hours trading (after 4:00 pm).

All FINRA members in good standing are eligible to participate in the ADF. Certain definitions concerning the ADF include:

- An **ADF market participant** is a FINRA member that has been approved for ADF trading. These market participants are also called **Registered Reporting ADF Market Makers**. Registered Reporting ADF Market Makers apply to quote specific designated securities on ADF. They must be willing to buy and sell those securities for their own accounts at displayed quotes, on a regular and continuous basis, just as Nasdaq market makers do on the Nasdaq system.
- An **ADF ECN** is a FINRA member that operates an electronic trading network and has been approved for ADF trading.
- An **ADF trading center** is either an ADF market participant or a Registered Reporting ADF ECN.

Members must register as ADF market participants (or ADF ECNs) before making a market or displaying orders on ADF. To register, a member must do *all* of the following:

- Apply to FINRA by submitting two documents:
    - **Certification Record**, which certifies ability to comply with Regulation NMS, and
    - **Participant Agreement** to submit quotes and trades to ADF. The agreement generally must be submitted at least six months before the member expects to begin participating in ADF.
- Receive certification of good standing from FINRA
- Comply with net capital requirements and other financial responsibilities
- Submit an ADF deposit of $250,000 in five equal installments into escrow. This amount increases to $500,000 if the firm requests accelerated migration to the ADF.

A firm that registers as an ADF market maker must plan to direct at least 75% of its quoting and trading volume to the ADF. Failure to do so can result in the forfeit of some or all of the firm's deposit.

> ***Knopman Note:*** The ADF does ***not*** route orders; instead, market participants using the ADF must execute using their own private connectivity systems.
>
> The ADF does handle trade reports, including accepting or declining trade reports.

1.11.1 Quotation Requirements and Obligations

Under FINRA Rule 6272, Registered Reporting ADF Market Makers must adhere to the quotation requirement and obligations so that the markets remain fair and orderly. The specific rules in furtherance of this goal are below, but note that they are generally the same requirements expected of Nasdaq market makers.

These rules, which, again, are almost identical to Nasdaq's, include:

- The requirement to maintain a firm, two-sided quote on a continuous basis for at least one round lot
- Minimum quotation increments ($0.01 for stocks trading at or above $1; $0.0001 for stocks trading below $1)
- Quotes must be entered and remain a certain percentage away from the inside market—the percentages are the same as Nasdaq's, as discussed earlier

1.11.2 Trade or Fade

If an ADF trading center receives an order that is greater than its published quotation size and executes a transaction in an amount of shares less than the size of the offer, then the ADF trading center must enter a new quote at a price that is inferior to its previously published quotation. The ADF trading center, however, does not have an obligation to fill the order in its entirety.

Example

An ADF market maker is bidding $10 for three round lots. It's subsequently presented a market order seeking to sell five round lots. The market maker is only obligated to buy three round lots, because that is its bid size. However, if it does not purchase all five round lots being sold, it must update its bid to a price that is less than $10 after execution.

1.11.3 Inactive Quoting

In order to maintain ADF certification, Registered Reporting ADF ECNs must post at least one **marketable quote** or order on the ADF on each side of the market (a bid and an offer) every 30 calendar days. A quote or an order posted through the ADF will be deemed marketable if it is accessed or executed against.

A Registered Reporting ADF ECN that fails to post at least one marketable quote or order every 30 calendar days shall lose its ADF certification at FINRA's sole discretion. Registered Reporting ADF ECNs seeking to regain ADF certification are required to recertify pursuant to FINRA Rule 6250.

1.11.4 Withdrawal of ADF Quotations

Similar to Nasdaq, ADF allows market makers to seek an excused withdrawal from their obligation to maintain a firm, two-sided quote.

1.11.4.1 Excused Withdrawal

The rules for withdrawing ADF quotations are generally parallel to Nasdaq Rule 4619 for withdrawal of quotations and passive market-making. One difference is that requests for withdrawals based on vacations are available to all ADF market makers, whereas they are only available to small Nasdaq market makers—those with three or fewer Nasdaq Level 3 terminals.

1.11.4.2 Voluntary Terminations (Unexcused Withdrawals)

FINRA Rule 6276 allows a Registered Reporting ADF Market Maker to voluntarily terminate its registration in a security by withdrawing its quotations from the ADF and not re-entering its quotations for five minutes, or by failing to re-enter quotations within 30 minutes of the end of a trading halt. This is also described as an unexcused withdrawal.

A Registered Reporting ADF Market Maker that voluntarily terminates its registration in a security may not re-register as a market maker in that security for 20 business days, absent an excused withdrawal—just as with Nasdaq.

One particular ADF withdrawal scenario occurs when a Registered Reporting ADF Market Maker fails to maintain a clearing arrangement with a registered clearing agency and, thereby, must terminate its registration as an ADF market maker. In such circumstances, the ADF market maker may re-register as a market maker at any time after a clearing arrangement has been reestablished. The 20-business-day wait does not apply.

1.11.5 Minimum Performance Standards

Under FINRA Rule 6250, if an ADF trading center experiences three unexcused system outages over a period of five business days, the ADF trading center may be suspended from quoting in the ADF in all or certain securities for a period of 20 business days. A **system outage** is an inability to post quotes or automatically respond to orders.

FINRA retains the authority to review any system outage to determine whether it should be excused or unexcused. A FINRA officer may deem a system outage excused upon proof that it resulted from circumstances outside the control of the ADF trading center. The burden, however, rests with the ADF trading center to demonstrate that a system outage should be excused.

Any ADF trading center that seeks to have a system outage reviewed must submit a written request with supporting documentation to FINRA by close of the business day on which the system outage occurs, or on the following business day if the system outage occurs outside of normal market hours.

A FINRA officer will determine whether a system outage is excused by the close of business on the day following the receipt of the request. The decision may be appealed to a three-member FINRA subcommittee by the close of business on the decision date.

1.11.6 Suspension and Termination of Quotes

FINRA, under Rules 6277 and 6278, can take disciplinary action against ADF market makers on a firm-wide basis or on a security-by-security basis. For a violation confined to one security, FINRA may place restrictions on quoting or trading in specific securities. Penalties may be more severe, and include limiting the ADF trading center's authority to **enter quotes** in one or more securities, or to **terminate** a participant's ability to use the ADF's data system or trade reporting facilities in one or more securities.

1.11.7 Quote and Order Access Requirements

As a part of ensuring access to all quotes and a unified National Market System, FINRA Rule 6250 regulates how ADF trading centers must display and allow access to their quotes to the market at large. For each security in which the trading center displays a bid or an offer, the ADF must:

- Provide other ADF trading centers direct electronic access
- Provide registered broker-dealers that are not ADF trading centers direct electronic access (so firms can automatically execute against their quotes) and allow for indirect electronic access
  - **Direct electronic access** means the ability to deliver an order for execution directly (electronically) against an individual ADF trading center's best bid or offer.
  - **Indirect electronic access** means the ability to route an order through another FINRA member firm for execution against the ADF trading center's best bid or offer.
- Provide similar access to its quotations in NMS stocks at a similar cost as those provided by exchanges
- Automatically update its quotations and immediately (electronically) respond to orders for execution
- Ensure that it does not impose unfairly discriminatory terms that prevent or inhibit any person, through a registered broker-dealer, from obtaining efficient access to its quotations

- Provide at least 14 calendar days' advance written notice to FINRA Market Operations before denying any registered broker-dealer direct electronic access

ADF trading centers must record the following information for every order they receive from other broker-dealers via direct or indirect electronic access:

1. Unique order identifier
2. Order entry firm
3. Order side
4. Order quantity
5. Symbol
6. Order price
7. Time in force
8. Order date
9. Order time (expressed in hours, minutes, seconds, and milliseconds)
10. Minimal acceptable quantity
11. ADF trading center name
12. Any other information specified by FINRA or the SEC

This information must be reported to FINRA by no later than 6:30 pm on the day of order receipt. In addition, if the ADF trading center acts on or responds to the order, it must also record and submit additional information, including:

1. Unique order identifier
2. Order response
3. Order response time
4. Quantity
5. Price

These items must be reported to FINRA by no later than 6:30 pm on the day of any response to or action taken regarding an order. Responding to an order means the order is either executed, cancelled, corrected, or rejected by the system.

In addition to submitting ADF order information to FINRA, records regarding these orders must be maintained for a period of at least three years; during the first two years, all records must be maintained in an easily accessible place.

1.11.7.1 Orders Not Required to Be Recorded

The recording and reporting requirements do not apply to orders received via a national securities exchange (Nasdaq or NYSE) or to orders that are fully posted to an ADF trading center.

1.11.7.2 Reporting Agent Agreements

Member firms may enter into agreements with third parties called **reporting agents** to fulfill the members' reporting obligations. A firm might engage a reporting agent to provide various back-office services, including ADF reporting obligations. Any reporting agent agreement must be in writing, specify the respective functions and responsibilities of each party to the agreement, and be maintained by each party to the agreement.

Each member, however, remains ultimately responsible for compliance with its reporting requirements.

Unit Exam

1. How frequently does Nasdaq disseminate cross order imbalance information?

   A. Every second
   B. Every five seconds
   C. Every minute
   D. Every two minutes

2. An order ticket is marked MOO. It is requesting an execution at:

   A. the opening price.
   B. the closing price.
   C. a price at or better than the previous day's close.
   D. the average price set in the first hour of trading.

3. The defined limit is best described as:

   A. the percentage that new quotes can be entered away from the NBBO.
   B. the percentage that existing quotes can deviate from the NBBO.
   C. the percentage of the NBBO that a market maker can earn in fees.
   D. the percentage of trading that a firm can conduct in its propriety accounts as compared to its customer limit orders.

4. Nasdaq may grant a market maker an excused withdrawal for up to five business days for all of the following except:

   A. religious holidays.
   B. termination of a clearing agreement.
   C. equipment failure.
   D. vacation.

5. All of the following market participants are exclusively associated with exchanges, except for a:

   A. floor broker.
   B. specialist.
   C. market maker.
   D. designated market maker.

6. If the quote for an NMS stock is $20.79 bid/$20.81 offer, which of the following quotes produces a crossed quote?

   A. Buy 100 at $20.79
   B. Sell 100 at $20.82
   C. Buy 100 at $20.82
   D. Sell 100 at $20.81

7. How many unexcused system outages are needed to suspend an ADF trading center from quoting in the ADF?

   A. Two in 10 business days
   B. Two in five business days
   C. Three in 15 business days
   D. Three in five business days

8. A Nasdaq market maker decides to begin offering quotes on XYZ Co. stock. The market maker has never quoted this stock previously. If the XYZ offers the market maker a $25,000 gift in exchange for providing quotes, the market maker should:

   A. refuse the gift but continue quoting the stock.
   B. refuse the gift and stop quoting the stock.
   C. accept the gift and continue quoting the stock.
   D. accept the gift and stop quoting the stock.

9. Based on a normal trading unit, what is the minimum quote that a market maker must make available for a security in which it makes a market during regular market hours?

   A. Buy 100 shares
   B. Sell 100 shares
   C. Buy 100 shares, sell 100 shares
   D. Buy 500 shares, sell 500 shares

10. Which of the following is not a function of the ADF trading center?

    A. Quotation display
    B. Quotation collection
    C. Trade execution
    D. Trade reporting

Unit Exam—Solutions

1. **(A)** Nasdaq disseminates the opening and closing cross order imbalance information every second.
2. **(A)** Market-on-open (MOO) orders specifically request an execution at the opening price.
3. **(B)** New quotes entered by a market maker must be within a designated percentage (typically 8%) of the NBBO. Once the quote is entered, it must remain within a defined limit of the NBBO (typically 9.5%). Importantly, the designated percentage rule applies to new quotes, while the defined limit rule applies to existing quotes.
4. **(B)** Nasdaq permits a market maker to withdraw their quote (excused withdrawal) for up to five business days for equipment failure, religious holidays, and vacation (but only for firms with three or fewer Nasdaq terminals). For up to 60 days, a market maker can seek an excused withdrawal for legal or regulatory reasons, such as an involuntary termination of a clearing agreement.
5. **(C)** Floor brokers, specialists, and designated market makers are all associated with exchanges. The term market maker can be used in reference to either an exchange or OTC securities.
6. **(C)** A crossed (or crossing) quote is a bid higher than the price of the lowest current offer, or an offer lower than the highest price of the current bid. In other words, the quote illogically crosses through the competitive market established by the best bid–ask spread.
7. **(D)** If three unexcused system outages occur during a period of five business days, the trading center may be suspended for 20 business days.
8. **(A)** A market maker cannot accept any payments to initiate quotations. If an issuer were to offer payment for a market maker to initiate quotes, the firm must refuse payment but could still quote the security.
9. **(C)** The market maker must, at a minimum, make a quote in a normal unit of trading, which is 100 shares, on each side of the market (i.e., a two-sided quote).
10. **(C)** The biggest difference between Nasdaq and the Alternative Display Facility (ADF) is that the ADF does not provide order routing or trade execution. Instead, firms using the ADF must have their own electronic trading or execution systems to effect transactions.

2. Over-the-Counter (OTC) Equities

Chapter 2 discussed securities that are listed and trade on national exchanges. There are, however, other marketplaces where unlisted equity securities can trade in an open and transparent manner. These marketplaces are called the **over-the-counter (OTC) markets**, and they have their own rules and regulations that market participants must follow. The regulatory landscape for the OTC markets is more relaxed and permissive.

Securities that are not listed on national exchanges can be quoted and traded through services offered by **OTC Markets Group**. The OTC Markets Group offers regulated **non-exchange, equity quotation facilities, such as the OTC Pink**, which allow market makers to enter, update, and display quotes.

> ***Knopman Note:*** The OTC Pink, and other OTC Markets facilities, are only used for quoting equities. Bonds, including senior debentures, are not quoted on the OTC venues.

2.1 Initiating and Resuming Quotes in OTC Equity Securities

SEC Rule 15c2-11 and FINRA Rule 6432 require OTC market makers and broker-dealers to perform due diligence on any issuer's securities prior to publishing quotes in an OTC security. These certifications require that a member firm review the issuer's financial and disclosure documents and believe these documents to be accurate and reliable.

Alternatively, in lieu of a market maker or broker-dealer conducting due diligence, a qualified interdealer quotation system (IDQS), such as the OTC Link, which will be discussed later, can be the one to conduct due diligence. This would allow any broker-dealer to display quotes for the particular OTC stock as long as the IDQS makes its review of the issuer's information publicly available. To do this, the market maker or broker-dealer must publish its quote within three business days of the IDQS's review of the subject security being published.

An IDQS or members preparing to display priced quotes must also indicate how the quote was determined and the factors considered in making that determination. Finally, they must certify that it is not initiating quotations in exchange for any payment or other consideration from the issuer or a related party.

Once the required due diligence has been performed and the pricing (if applicable) and business rationales for the quote have been documented, a market maker or IDQS must file a **Form 211** with FINRA. The Form 211 filing must be prior to initiating, or resuming, quotes in the subject security.

> ***Knopman Note:*** 15c2-11 applies when a market maker wants to enter quotes in an OTC equity security. It does not apply to NMS stocks. 15c2-11 is an important rule to know by rule number.

2.1.1 Rule 15c2-11 Due Diligence Requirements

The primary objective of Rule 15c2-11 is to ensure that sufficient OTC issuer information is available when that issuer's securities enter the marketplace. To accomplish this, the rule requires a prospective market or IDQS to conduct a review of that security issuer's important information prior to initiating or resuming quotes in that security. Additionally, to increase market transparency, the issuer's information must be current and publicly available prior to the commencement of any market-making activities and both market makers and IDQS must document their reviews and make the information available to others upon request.

The current and publicly available issuer information that a broker-dealer or IDQS must collect and review depends on the issuer's federal filing status:

- For a new issuer who filed a registration statement under the Securities Act of 1933 within 90 days of the broker-dealer or IDQS publishing a quote, that issuer's current and publicly available information is its prospectus
- If a new issuer filed a Regulation A offering statement less than 40 calendar days before broker-dealer or IDQS publishes its quote, the issuer's information is its offering circular
- For established issuers who file periodic financial information (pursuant to the '34 Act, Regulation A, or Regulation Crowdfunding), their current and publicly available information is their current annual report and any additional required periodic or current reports
- If a foreign private issuer is exempt from U.S. registration, its information is the information published on its website or through another electronic delivery system that is publicly available in its primary trading market

An issuer who does not fit any of the above categories is called a "catch-all issuer." Catch-all issuers' current information includes lists of:

- Company officers and large shareholders
- Company insiders' job titles
- Names of any issuer predecessors for the past five years
- States of incorporation or registration for all such predecessors
- Principal place of business
- Ticker symbol (if assigned) during the past five years

The catch-all issuer's financials are considered current if they meet two criteria:

1. The date of its balance sheet does not exceed 16 months before the quote publication
2. Its profit and loss and retained earnings statements cover the 12 months before the balance sheet date

In addition, firms must have a **reasonable basis** for believing that information about the issuer is accurate and reliable and this information must be made available to any person expressing interest in trading the stock.

In short, the regulatory framework is that market makers and IDQS must know and have an understanding of the issuers they quote in the OTC markets. This is a different regime than that for listed stocks, where market makers need not undertake due diligence prior to quoting a security.

2.1.2 Exceptions to Filing Form 211

A number of exceptions allow a market maker to initiate quotes in an OTC equity without filing Form 211:

- Quotes specifically representing a customer's unsolicited order. Note that if the unsolicited order came from an insider or affiliate of the subject company, the broker-dealer is still required to ensure that the issuer information is current and publicly available.
- Quotes for securities that traded on an exchange on that day or on the previous day (i.e., a recently delisted security).

> ***Knopman Note:*** If a stock is delisted from Nasdaq or the NYSE, it can immediately be quoted OTC without a Form 211 filing.

- Piggybacking exception (discussed below).

> ***Knopman Note:*** An exception to the Form 211 filing is available if the quotes represent unsolicited customer interest (i.e., customer orders). Once the customer's order is filled, or if the customer withdraws (cancels) its interest, the market can no longer quote the stock.
>
> If the order is in fact cancelled, the market maker must remove the quote.

2.1.2.1 Piggybacking

The **piggybacking exception** allows a marker maker to publish a quotation in an OTC stock without completing its own 15c2-11 due diligence and filing Form 211 as long an IDQS or another broker-dealer has already conducted due diligence, filed Form 211, and published a quote in that security.

In order to use the exception:

- The issuer's information must be current and publicly available, timely filed, or filed within 180 days from a specified time period
- The quotations being piggybacked off may be either a bid or an offer but must be priced
- No more than four consecutive business days have passed without a quote

A broker-dealer cannot use the piggyback exception during the first 60 calendar days after termination of a trading suspension for the security.

Note, that if the market maker that originally filed Form 211 drops out of the market, a piggybacking market maker can continue to quote the stock.

2.2 Quotation and Tick Sizes

The **tick size** is the minimum quote increment and minimum price movement required by market participants. Under FINRA Rule 6433, firms that publish quotes in OTC stocks must enter and honor their quotations for the minimum size as listed in the table below. It is the member's responsibility to determine the minimum size requirement applicable to its quotation.

Price (Bid or Offer) in US$	Minimum Quote Size
0.0001–0.0999	10,000
0.10–0.1999	5,000
0.20–0.5099	2,500
0.51–0.9999	1,000
1.00–174.99	100
175.00+	1

Example

A market maker bidding 0.50 for an OTC equity could have a size of 2,900 shares at that price, but not 1,500 shares.

Depending on the price level of the quotation, a different minimum size may apply to each side of the market quoted by the member in a given security.

Example

An OTC equity is quoted at 0.15–0.25. Therefore, the bid size is at least 5,000 shares, but the minimum offer size is 2,500 shares.

2.2.1 Minimum Pricing Increment for OTC Equity Securities

When entering quotes on OTC securities, FINRA Rule 6434 governs the minimum increments a security can be quoted or traded in. This rule parallels the minimum pricing increments for Nasdaq securities with one additional increment for very low priced securities:

- Stocks with a bid greater than or equal to $1 must be incremented by $0.01 or more.
- Stocks with a bid less than $1 must be incremented by $0.0001.
- Stocks with a bid less than $0.0001 must be incremented by $0.000001.

Stock Price	Minimum Increment	Example
≥ $1	$0.01	NBBO is $3.12 × $3.19. A new bid could be entered at $3.13, but not at $3.125.
$0.0001–$0.99	$0.0001	NBBO is $0.0042 × $0.0098. A new bid could be entered at $0.0043, but not at $0.00425.
$0.000001–$0.000099	$0.000001	NBBO is $0.000081 × $0.000098. A new bid could be entered at $0.000082, but not at $0.0000815.

2.2.2 Prohibition from Locking or Crossing Quotations

Just as in NMS securities, members must implement policies and procedures to reasonably avoid displaying locking or crossing quotations in any OTC equity security. This activity is prohibited under FINRA Rule 6437.

2.2.3 Displaying Priced Quotations in Multiple Quoting Media

Under FINRA Rule 6438, if a member displays priced quotations in an OTC equity security in two or more quotation systems that allow real-time updates, it must display the same quotes on both systems.

2.3 OTC Markets Group

Securities that are not listed on national exchanges can be quoted and traded through services offered by **OTC Markets Group**. The types of securities that can be quoted on these facilities include domestic equities, foreign equities, and direct participation programs (DPPs), such as limited partnerships.

OTC Markets Group organizes securities into three markets based on the quality and quantity of information publicly available. The minimum information requirements for these securities are found in the Securities Exchange Act **Rule 15c2-11**. Specific financial minimums and disclosure obligations must be met for trading through **OTCQX** and **OTCQB**. If ineligible for trading elsewhere, securities can be included in **Pink** (which will be referred to as the **OTC Pink** throughout this text).

- **OTCQX** is for more established companies with higher financial standards, best practice corporate governance, and compliance with U.S. securities laws. Penny stock companies, shells, and companies in bankruptcy do not participate in the OTCQX market. International companies may also participate in OTCQX without meeting SEC reporting standards.
- The **OTCQB** Venture Market is for entrepreneurial and development stage for U.S. and international companies. To be eligible, companies must be current in their reporting and undergo an annual verification and management certification process. Companies must meet a minimum bid test of $0.01 and may not be in bankruptcy.
- The **Pink Open Market (Pink)** is for companies that do not meet OTCQX or OTCQB requirements. Included are foreign companies with limited disclosure, penny stock companies, shell companies, and financially distressed and delinquent companies. Although some company information must be available publicly, audited financial reports are not required. Two-sided quotes are not required, and **indications of interest** are permitted to gauge market interest. Pink companies are further sub-categorized as those with "current information" or "limited information." The Pink Market is most appropriate for professional and sophisticated investors with a high risk-tolerance for trading companies that may have limited information available. Investors are strongly advised to proceed with caution when trading these securities.

To summarize, the OTCQX, OTCQB, and OTC Pink are the quotation facilities where investors and market makers can view quotes.

The OTC Link, furnished by OTC Markets Group, is a **qualified interdealer quotation system (IDQS)** that electronically connects broker-dealers to provide quotations and also facilitate trading in these OTC securities. This trading system is sometimes also referred to as the **OTC Link Alternative Trading System (ATS)**. Put differently, the OTC Link is the alternative trading system (discussed later) that allows for executions of securities quoted on the OTCQX, OTCQB, or OTC Pink.

As discussed earlier, no OTC security can begin trading until a market maker sponsors it by filing a Form 211 to register with FINRA.

Note that the remainder of this section will focus on rules and regulations associated with the OTC Pink as that is the emphasis of the Series 57 exam.

2.3.1 Securities Eligible for Quotation on OTC Pink

The OTC Pink has the lowest criteria regarding what securities are eligible for quotation. Unlike securities listed on U.S. stock exchanges, securities on the OTC Pink marketplace may be quoted and traded without being SEC registered, or even filing periodic reports or audited financial statements with the SEC.

Keep in mind, however, that regardless of the security's registration status, or the issuer's filings and disclosures, a market maker must have obtained and be able to provide basic information in order to initiate a quote in any OTC equity security under Rule 15c2-11.

> ***Knopman Note:*** The OTC Pink marketplace has no eligibility criteria, but market makers can only post quotes after conducting the appropriate due diligence.

2.3.2 Characteristics and Firmness of OTC Pink Quotations

FINRA Rule 5220 mandates that quotes entered into a trading system must be firm. This rule is fundamental in each of the trading systems previously addressed—Nasdaq, ADF, and OTC Pink. But an exception to this rule—available primarily on the OTC Pink marketplace—is that a quote need not be firm if it is clearly designated as not firm or firm for less than a normal unit of trading when entered into the system.

Therefore, on the OTC Pink markets a quote may be:

- Two-sided (a priced bid and offer).
- One-sided (a priced bid or offer).
- An unpriced indication of interest (including bid-wanted or offer-wanted indications). Firms displaying unpriced indications should be contacted by potential counterparties to discuss prices.
- Subject (meaning not firm), provided it is indicated as such at the time of entry.

> ***Knopman Note:*** OTC Pink permits subject quotes (a quote with a price that may not be honored) provided they are indicated, and clearly designated, as not-firm, subject quotes.

> ***Knopman Note:*** An unpriced indication of interest that reflects a customer order or a desire to make a transaction in the security is generally referred to as a "natural" indication of interest. Firms are encouraged to identify naturals to a potential counterparty. The alternative, a "non-natural," reflects an IOI for a market maker to transact for its own account.

As a result, it is very important that parties trading on the OTC Pink marketplace understand the system clearly and that the displayed market will not always reflect actual trading interest in the security.

> ***Knopman Note:*** There is no penalty for a quote withdrawal by an OTC market maker as OTC equities do not have a continuous, firm-quote requirement.

Unit Exam

1. What term describes an equity security that is not an NMS stock?
   - A. Penny stock
   - B. OTC equity
   - C. Small-cap stock
   - D. Pink sheets stock

2. When a market maker files Form 211 under 15c2-11, the firm is preparing to:
   - A. enter quotes on a Nasdaq-listed stock.
   - B. withdraw quotes on a Nasdaq-listed stock.
   - C. enter quotes on an OTC stock.
   - D. withdraw quotes on an OTC stock.

3. The best bid for ABC stock, which is an OTC security, is currently $0.45. A new bid entered for this security can be entered at a minimum increment of:
   - A. $0.01.
   - B. $0.001.
   - C. $0.0001.
   - D. $0.00001.

4. When comparing market maker quotes on Nasdaq with those on the OTC Pink, it is most accurate to state that:
   - A. both venues allow for one-sided quotes, as long as the quote is firm.
   - B. both venues require quotes to be two-sided.
   - C. the OTC Pink permits subject quotes, while Nasdaq does not.
   - D. Nasdaq permits unpriced indications, while the OTC Pink does not.

5. When does an ask for an OTC equity cross the market?
   - A. Above the best bid
   - B. Below the best bid
   - C. Above the best offer
   - D. Below the best offer

6. Who is responsible for determining the minimum quote size requirement for a stock quoted on an interdealer system?
   - A. Nasdaq
   - B. FINRA
   - C. The member who provides the quote
   - D. The primary market

7. If a stock is priced at $175 or more, the minimum quote size on any interdealer quote system is:
   - A. one share.
   - B. 10 shares.
   - C. 100 shares.
   - D. 200 shares.

8. All of the following securities are likely to be quoted on the OTC Pink except:
   - A. foreign equities.
   - B. domestic equities.
   - C. debentures.
   - D. direct participation programs.

9. A market maker can quote an OTC stock without filing Form 211 if the stock was traded on a national securities exchange:
   - A. that same day.
   - B. that same day or the preceding business day.
   - C. within the past five business days.
   - D. within the past 30 calendar days.

10. Which of the following is TRUE regarding securities eligible to be quoted on OTC Pink?
    - A. Neither nationally listed nor regionally listed stocks can be quoted.
    - B. Both nationally listed and regionally listed stocks can be quoted.
    - C. Only nationally listed stocks can be quoted.
    - D. Only regionally listed stocks can be quoted.

Unit Exam—Solutions

1. **(B)** Any equity security that is not a National Market System (NMS) stock is considered an OTC equity security.
2. **(C)** Rule 15c2-11 requires market makers to perform due diligence on an issuer's securities and file Form 211 with FINRA prior to publishing quotes in an OTC security.
3. **(C)** Stocks with a bid less than $1 must be incremented by $0.0001.
4. **(C)** Market maker quotes on Nasdaq must be firm and two-sided, while quotes on the OTC Pink can be two-sided, one-sided, firm, subject, or unpriced.
5. **(B)** For any questions about locking or crossing, look at the price of the opposite side of the bid–ask. If the bid–ask matches the opposite side, it locks the market. If it goes one trading increment beyond locking, it crosses the market.
6. **(C)** The member who provides the quote is responsible for determining the minimum size at a given time.
7. **(A)** The minimum quote size for securities priced at $175 or more is one share.
8. **(C)** The types of securities that can be quoted on the OTC Pink include domestic equities, foreign equity, and direct participation programs (DPPs), such as limited partnerships. Bonds, such as debentures, are not quoted on the OTC venues.
9. **(B)** A market maker can quote an OTC stock without filing Form 211 if the stock was traded on a national securities exchange (i.e., Nasdaq or NYSE) that day or the prior business day. An example of this would be a recently delisted security.
10. **(D)** Securities eligible to be quoted OTC include unlisted stocks and stocks listed on a regional exchange. NMS stocks (i.e., nationally listed stocks) cannot be quoted OTC.

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- Breath: Regulate your breath to instantly quiet anxiety and improve focus.
- Elimination: Eliminate distractions, such as texts and social media, to focus on the task at hand.
- State: Get into the right state of mind to maximize learning, working to build your confidence and stop any negative self-talk.

Here's to making the most of every single hour you study. We believe in your success!

—Dave

3. Trading Rules

Each of the exchanges and venues where securities can be quoted and trade—such as Nasdaq, ADF, OTC Markets, and ATS—have rules and regulations to ensure fairness, transparency, and consistency in the marketplace. This chapter will review these rules and regulations.

3.1 Regulation NMS

In 2007, Regulation NMS (National Market System) was adopted to modernize and strengthen the National Market System for NMS stocks (stocks that are exchange-listed) and promote fair and efficient trading across securities markets.

Reg NMS was adopted because the market for securities was fragmented across various exchanges and locations. The same stock could trade at different prices on different trading venues at the same time. This lack of transparency and information resulted from the lack of a uniform set of rules governing order execution and trade reporting requirements on both exchanges and OTC. Reg NMS addresses these issues.

This section will address Regulation NMS rules regarding:

- Order access (Rule 610)
- Order protection (Rule 611)
- Minimum price increments (Rule 612)

> ***Knopman Note:*** The exam may reference a benchmark trade. A **benchmark trade** is an order executed at a price that is not based on the then-current quoted price—benchmark trades are very specific types of orders ***only*** permitted in connection with a pilot program on small-cap stocks (Rule 608 of Reg NMS). This type of trade should be selected as an answer only if all these characteristics are indicated. In all other cases, benchmark trade will not be the correct answer.

3.1.1 NMS Access Rule

Under Regulation NMS Rule 610 (the Access Rule), the SEC set new standards requiring greater access to quotes in NMS stocks. The rule was designed to ensure investors could access the best displayed prices fairly and efficiently, in whatever market the quote was displayed. The Access Rule increased access to quotes in three ways:

1. It prohibits trading centers from unfairly discriminating against private connectivity providers in ways that inhibit access.
2. It limits fees that trading centers may charge for access to no more than \$0.003 per share for stocks quoted at \$1 or more. For quotes below \$1, the limit is 0.3% of the quotation price.

Example

The offer to sell an NMS stock is displayed as \$20 per share. The cost to access the offer may not exceed \$0.003 per share.

The offer to sell an NMS stock is displayed as \$0.60 per share. The cost to access the offer may not exceed \$0.0018 per share (calculated as \$0.60 × 0.003).

3. It requires self-regulatory organizations (SROs) to establish, maintain, and enforce written rules to prevent members from displaying automated quotes that **lock** or **cross** the protected quotes of other trading centers.

Knopman Note: The maximum access fee is \$.003 per share for stocks quoted at \$1 or more.

A **protected quote** is one that is immediately and automatically accessible and is the best bid or best offer on a national securities exchange.

Example

On Nasdaq, the inside market for ABC stock is 23.06–.08. The .06 bid is a protected quote since it is the best bid. However, a bid at .05 would not be a protected bid since it is not the best bid.

Under the Access Rule, the first protected quote received at a given price is entitled to an execution at that price and will not lock or cross the other side of the market.

Example

A market maker enters a quote for ABC stock at 12.45–12.49. Milliseconds later, a quote on an unconnected ECN asks \$12.45. Instead of locking the market, the market maker's 12.45 bid will execute against the ECN's 12.45 ask.

3.1.2 Order Protection Rule (aka Trade-Through Rule)

Regulation NMS Rule 611, the Order Protection Rule, requires market makers to compare quotes on multiple exchanges to obtain the best execution for each customer order, meaning the market maker must route a quote to the exchange or venue offering the best terms, including price. Specifically, Rule 611 requires trading centers to establish and enforce procedures designed to prevent trade-throughs. A **trade-through** occurs when an order is executed at a price inferior to protected quotes displayed by other trading centers.

Example

The NBBO for a stock is 37.52–37.59. A customer enters a market order to buy shares. The executing firm must obtain the shares for the client at the 37.59 price because that is the best available offer. The market maker would violate the Order Protection Rule if it routed the customer's order to another venue or exchange where the shares were offered at any higher price (e.g., $37.60); to do so would be a trade-through because the firm executed the client's order at a worse price ($37.60) than the best price ($37.59).

Knopman Note: Unless an exception (described below) exists, it is prohibited to execute trades at prices inferior to protected quotations.

3.1.2.1 Exceptions to the Trade-Through Rule

Multiple types of trades are exempt from the Trade-Through Rule. These trades can be executed at a price other than the best protected quote and are not violations of Reg NMS Rule 611. These include:

- Transactions where the better price was on a trading center that was experiencing some type of equipment failure or system malfunction

Knopman Note: A broker-dealer or an exchange raises a "self-help" alert when another broker-dealer or exchange is experiencing a technical problem and should be bypassed when routing orders. For example, Broker-Dealer X could raise a self-help against Broker-Dealer Z when Broker-Dealer Z is having a technical problem. Broker-Dealer X would then route orders elsewhere.

A self-help is usually claimed if a market center does not respond to orders within one second.

Once the self-help is raised, a broker-dealer can trade through the protected quotes on the exchange experiencing difficulties and would not violate the trade through rules. Note that when a market maker raises a self-help alert, it must notify the market center with the issue that its quotes will not be protected.

- Transactions that do not settle regular way
- Transactions at the open, close, or re-opening (e.g., after a trading halt)
- Transactions executed while the market is locked or crossed
- Intermarket sweep orders—discussed below
- Stopped orders—a **stopped order**, sometimes called a stop stock

transaction, is an order where a broker-dealer offers a customer a specific price for a transaction, along with the opportunity for the customer to find a better price elsewhere. The execution must be at a superior price to any protected quote in order to qualify for an exemption from the Trade-Through Rule. This is a different order from a traditional stop order, which will be discussed later.

Example

A market center stops out a customer's buy order at \$10.53. This means the market center is guaranteeing to fill the customer at \$10.53. The customer can look for a better price elsewhere but may also decide to come back to the initial market center to have the order filled at \$10.53 even if the shares are available at a lower price.

Knopman Note: Stop stock orders do not require exchange or regulator permission.

- A transaction executed at a price not based on the currently quoted price for the security at the time of execution
- Under the **one-second exception**, transactions executed where the exchange that was traded-through had shown an inferior price until one second prior to execution. This is sometimes referred to as a **flickering quote**. In short, if the trader did not have time to see the better price and executed at an inferior price, that is an exception.
- Trades for **nonconvertible preferred stock**, securities that trade like debt instruments and are therefore not subject to the Trade-Through Rule
- A **qualified contingent trade**, which consists of two or more component orders in which at least one component order is in an NMS stock, all components are effected with a price contingency, and the execution of one component is contingent on all other components. Examples of contingency trades include:
    - A trade involving an NMS stock and a derivative of the stock (e.g., an option)
    - Trades involving two stocks in a proposed merger
    - Fully hedged trades
    - Spread trades in derivative securities
- An **error correction trade**, which occurs when a trading center discovers an error and modifies the order, or executes a new order, at a price consistent with the parties' original understanding of how the order should have been handled. For example, if the trade was executed at the wrong price, in the wrong stock, or for the wrong amount, the firm might execute an error correction trade.

- A **print protection trade**, which allows a trading center to correct a trade so that a displayed price can be offered to customers when trades are subsequently reported at prices inferior to the display

  For example, if the price is better than a protected quote on another market center, a print protection order would still allow the market center to display the order.

Example

The best bid on Trading Center A is 39.80, with the second best bid at 39.75. The best bid on Trading Center B is 39.70. Under the print protection exception, an order to sell at 39.70 could be executed against the two bids on Trading Center A (39.80 and 39.75), which is offering superior prices to the protected 39.70 bid on Trading Center B—this bid can be ignored since it is not competitive with Trading Center A.

Knopman Note: An exception from the Order Protection Rule means an order can be executed at a price that is inferior to, or not executed against (i.e., traded-through), a better price on another exchange. Candidates should know the list of exceptions from the Order Protection Rule, including the second leg of a riskless principal trade, qualified contingent trades, crossed market trades, self-help (described above), and ISO orders.

3.1.2.2 Intermarket Sweep Orders (ISOs)

The Order Protection Rule can create a best-execution or trade-through problem for investors placing large orders of stocks that trade across multiple exchanges. An example will illustrate the issue.

Example

ABC Pension Fund places an order to buy 20,000 shares of XYZ common stock at 74.53. XYZ is quoted across various trading venues as follows:

Nasdaq		ADF		BATS		EDGX	
Ask	Size	Ask	Size	Ask	Size	Ask	Size
74.47	27	74.49	35	74.56	18	74.48	26
.48	19	.50	33	.57	21	.49	19
.50	32	.51	29	.59	19	.50	24
.51	15	.52	30	.61	27	.51	30
.52	27	.53	18	.62	13	.52	40

Absent an exception, the order to buy 20,000 shares (i.e., 200 round lots) must be executed in order of best price among the four trading venues:

- 27 round lots at .47 on Nasdaq
- 26 round lots at .48 on EDGX
- 19 round lots at .48 on Nasdaq
- 35 round lots at .49 on ADF
- 19 round lots at .49 on EDGX
- 24 round lots at .50 on EDGX
- Etc., until all 20,000 shares are filled

Going back and forth between the various venues complies with the Order Protection Rule, but from a best-execution standpoint creates many problems. It takes time to continually move from exchange to exchange, compromising execution speed. The latency created by filling the order in this manner will negatively impact the weighted average price that is ultimately received.

An **intermarket sweep order (ISO)** solves this problem. An ISO is defined as a limit order that is routed to a specific trading center (i.e., exchange) simultaneously with the routing of one or more additional limit orders to execute against the fully displayed size of any protected quote superior to the limit price of the ISO. A **protected quote**, as discussed earlier, is a displayed quote that represents the best price on an exchange. In the example above, the offer at 74.56 on BATS is a protected quote, because it is the best offer on that exchange. Similarly, Nasdaq, ADF, and EDGX have protected quotes at **the top of the book**, so called for their position on the screen.

Referring back to the preceding example, an ISO order facilitates more efficient and effective execution.

Example

ABC Pension Fund places an order to buy 20,000 shares of XYZ common stock at .53, routed as an ISO to Nasdaq. The order will be executed entirely on Nasdaq provided that limit orders are simultaneously routed to ADF and EDGX to execute against the entire displayed size of their protected offers. The highlighted boxes below indicate the offers that are lifted in the execution of this order.

Nasdaq		ADF		BATS		EDGX	
Ask	Size	Ask	Size	Ask	Size	Ask	Size
74.47	27	74.49	35	74.56	18	74.48	27
.48	19	.50	33	.57	21	.49	19
.50	32	.51	29	.59	19	.50	24
.51	15	.52	30	.61	27	.51	30
.52	27	.53	18	.62	13	.52	40

Note that only the protected offers on the exchanges other than Nasdaq are required to be executed as part of the ISO. The protected offers are only the best prices. Also, the protected offer on BATS does not need to be executed because the price is not superior to the ISO limit price of .53.

This order type allows for greater efficiency when executing large orders across multiple exchanges.

3.1.3 Minimum Price Increments

Under Reg NMS Rule 612, the minimum price increments on quotes on NMS stocks depend on the price of the bid or offer. This rule is equivalent to the sub-penny increments discussed earlier.

If a quote (bid or offer) on an NMS stock is priced equal to or greater than $1 per share, then the minimum price increment is $0.01. Thus, a bid of $1 is permissible, but the next highest permissible bid is $1.01. Firms cannot enter sub-penny bids. For example, a bid of $1.005 is prohibited.

If a quote (bid or offer) on an NMS stock is priced at less than $1 per share, then the minimum price increment is $0.0001 (one one-hundredth of a cent). Thus, a bid of $0.45 is permissible, and the next highest permissible bid is $0.4501. But a bid of $0.45005 is prohibited.

3.2 Disseminating Quotes

Market makers and broker-dealers are required to post firm quotes subject to certain limited exceptions. Quotes that are not honored are considered fictitious, which is a violation of FINRA and SEC rules. With respect to displaying or circulating customer quotes, the member must believe they represent true, bona fide prices.

Thus, it is not permissible to enter quotes purely for the purpose of:

- Obtaining market information (i.e., where counterparties might be willing to trade)
- Creating the false appearance of market activity, or
- Inducing a person to make or submit any order

The SEC has taken disciplinary action against market makers who worked together to coordinate the entry of quotes into the Nasdaq system to artificially affect prices of subsequent transactions.

A common example of this is **quote rigging**, where one market maker requests another market maker to move toward or away from the inside market to help satisfy demand from a customer. This coordination of quote movements gives participating market makers an unfair advantage over their own customers, who are not privy to the coordination. The SEC alleges that this quote-rigging violates the anti-fraud provisions of the '34 Act.

As discussed above, FINRA Rule 5220 requires all market makers to make firm quotes and avoid backing away from those quotes by refusing to honor them. Although free to change their quotes based on market information and trading activity, members are expected to honor their quotes at the then-current posted size and price.

3.3 Payment for Order Flow

When a customer enters an order to a broker-dealer, the firm has certain discretion as to where to route the order for execution. In deciding where to route customers' orders, firms may consider various factors in addition to price, such as speed of execution or likelihood of fails. The current regulatory landscape also allows exchanges and market makers to pay broker-dealers to route orders to them—the size of these payments varies, but can be a penny per share or more per order. These arrangements are called **payment for order flow**. Regardless of where an order is routed, the original firm must still adhere to the Order Protection Rule and best-execution mandates. Payment for order flow can also be received as in-kind services, such as research, clearance, custody, adjustment to unfavorable trading errors, and offers to participate as an underwriter in public offerings. Exchanges and market makers do this to increase volume or to be better able to fill their own customers' orders.

If a firm does receive payment for order flow, it must provide customers with written disclosure of the arrangement, including a detailed description of the type of payments received. These disclosures must be made at account opening and annually thereafter. For each individual trade that is **routed away** in exchange for payment, the firm must disclose this fact on the trade confirmation. Customers may make a written request to the firm for additional information.

Finally, each firm must make quarterly disclosures describing the broker-dealer's relationship with the exchanges and other market makers with which it has an order flow arrangement. This is a Reg NMS Rule 606 report and will be discussed in greater detail later.

3.4 Trading Halts

The rules governing the equity markets allow regulators to halt trading in particular securities if warranted. Reasons for trading halts include investor protection and providing time for material news to disseminate or to confirm that an issuer is meeting its listing requirements. Depending on the nature of the security, where it is traded, and the circumstances, the trading halt may be initiated by:

- Nasdaq
- FINRA (for NMS or OTC stocks), or
- The SEC

> ***Knopman Note:*** During a trading halt, no trades can be executed (i.e., a market maker cannot match buys and sells). There is NOT any exception for block trades.

3.4.1 Nasdaq Trading Halts

As a condition for listing on Nasdaq, issuers agree to notify Nasdaq of material news at least 10 minutes prior to public release. Market makers also have an obligation to notify Nasdaq if they become aware of such information. This information is typically provided electronically to Nasdaq MarketWatch.

Once Nasdaq MarketWatch receives the information—whether from the issuer or another source—it will promptly evaluate it, estimate its potential impact on the market, and determine whether to halt trading in the security. If Nasdaq decides to halt trading (under Nasdaq Rule 4120), it will post its decision on Nasdaq.com. In addition, Nasdaq shall disseminate notice of the commencement of a trading halt through major wire services. If trading is halted, Nasdaq will display **trading halt code identifiers**, which indicate the market status.

Trade Halt Code	Trade Halt Description
T1	**Halt—News Pending** Trading is halted pending the release of material news.
T2	**Halt—News Released** The news has begun the dissemination process through an appropriate method.
T3	**News and Resumption Times** The news has been fully disseminated or Nasdaq has determined that the reason for the halt will no longer have a material effect on the market for the security. Under a T3 code, the system will display two times: (1) The time when market participants can enter quotations (e.g., 11:35:15 am), followed by (2) The time the security will be released for trading (e.g., 11:40:15 am)

Nasdaq requires advance notice so it can halt trading while the news is broadly disseminated and incorporated into the total mix of information on a particular security. A halted security gives investors time to consider the new information and make fully informed decisions as to the appropriate price for it.

Additional reasons Nasdaq may halt trading include:

- A halt in trading by the security's primary listing place (e.g., NYSE)
- A series of unusual transactions that seem unrelated to the current market price for the security, potentially indicating a system malfunction

Knopman Note: During a Nasdaq trading halt, participants are permitted to enter orders and designate them to be held until the beginning of the display-only period (as indicated by T3). These orders are held in a suspended state until the display-only period begins.

3.4.2 FINRA Trading Halts in NMS Securities

FINRA also has the authority to halt trading on exchanges in any NMS stock whenever the primary listing exchange imposes a trading halt. Reasons for a trading halt include:

- To permit dissemination of material news (like with the Nasdaq trade halt discussed above)
- To verify the issuer's ability to meet listing requirements
- To protect investors and the public interest

Members are required to notify FINRA promptly if they have knowledge of a matter related to an NMS stock or its issuer that has not been adequately disclosed to the public.

A trading halt may begin promptly upon release of an appropriate notice by the exchanges or FINRA. When the halt is lifted, trading may resume. A lengthy trading halt is considered a **closure**.

Example

On January 21, 2015, the CEO of Tootsie Roll Industries, a public company listed on the NYSE, passed away. The NYSE and FINRA initiated a 20-plus-minute trading halt in the stock by issuing a news pending halt. Trading was halted in all markets because such news could affect the security's price; the halt gave market participants time to assess the impact of the news and enter new quotes as appropriate once trading resumed.

Knopman Note: During a trading halt, new orders on a NYSE-listed stock cannot be entered on Nasdaq until the security re-opens on the NYSE (primary market).

3.4.3 FINRA Trading Halts in OTC Equities

Under FINRA Rule 6440, FINRA may direct member firms to halt trading and quotations in OTC equity securities if doing so would protect investors and the public interest. During a trading halt, members may not quote or trade in the halted security.

FINRA may declare a halt on a variety of grounds, including:

- The issuer is subject to a pending news release.
- Erroneous trades based on system malfunction are likely to have a material effect on the market.
- An OTC security is a derivative of a listed security—including a foreign exchange—and the listing exchange imposes a trading halt (this is called a **derivative halt**).

FINRA will *not* halt US trading if a foreign exchange halts foreign trading because of foreign regulatory filing deficiencies or foreign exchange operational reasons (e.g., the foreign exchange has technical problems).

> ***Knopman Note:***
>
> *Q:* An American depositary receipt (ADR) is a security that represents a share of a foreign company. When will FINRA halt trading in US-traded ADRs?
>
> *A:*
>
> - If a foreign regulator halts the underlying foreign stock for public-interest or news-pending reasons, FINRA will halt trading in US ADRs.
> - If a foreign regulator halts the foreign stock solely for a regulatory filing deficiency or operational reasons, FINRA will not halt trading in US ADRs.

3.4.4 Halt Screen and Codes

On the OTC Markets, trading halts are identified with a halt code along with the date, time, and ticker of the stock. These are the most common halt codes:

- **U1:** Indicates a foreign regulatory halt
- **U3:** Indicates an extraordinary event halt, such as the release of information with a material effect on the company or stock price
- **H10:** Indicates an SEC trading suspension

3.4.5 Extraordinary Event Halt

FINRA may impose an **extraordinary event** trading and quotation halt in an OTC equity based on the facts and circumstances of a particular event. However, FINRA will exercise this authority only in very limited circumstances. Such halts normally last for a period of 10 business days but may last longer if FINRA believes it is necessary for investor protection.

To determine whether to impose an extraordinary event halt, FINRA considers these factors:

- The material nature of the event
- Whether material facts surrounding the event are undisputed and not in conflict
- Whether the event has caused widespread confusion in trading the security
- Whether there has been a material negative impact on the market for the security
- Whether the potential exists for a major disruption to the marketplace
- Whether there is significant uncertainty in the settlement and clearance process for the security
- Other factors as FINRA deems relevant in making its determination

> ***Knopman Note:*** FINRA can halt OTC trading for an extraordinary event for up to 10 business days. After 10 business days FINRA must confirm that the extraordinary event is ongoing in order to extend the halt.

3.4.6 Prohibition During Trading Halts

Under FINRA Rule 5260, during a trading halt, firms cannot publish any quotations or indications of interest, or execute any transactions. Only after trading has resumed may firms re-enter their quotes and begin transacting in the security.

One exception to this requirement is that if trading is halted in connection with a limit up/limit down (LULD) price band scenario (discussed shortly), quotes may be entered during the trading pause.

During circuit breaker halts, discussed shortly, Nasdaq permits quotes in the five minutes preceding the resumption of trading.

> ***Knopman Note:*** During a trading halt (except for an LULD halt), firms cannot publish quotes or execute any trades.

3.4.7 SEC Suspension of Trading

Federal securities law allows the SEC to suspend trading in any stock—listed or OTC—for up to 10 business days if required to protect investors. Trading might be suspended when the issuer is not current in its SEC filings or when the SEC has concerns about the accuracy of publicly available information regarding the company's operational or financial status, or about insider trading or market manipulation. The SEC also has emergency authority to suspend all trading for up to 90 days, with notice to the President of the United States.

The SEC normally does not comment publicly on companies during this period. After a suspension ends, a broker-dealer may not publish quotes or **solicit investor orders** for a previously suspended OTC stock until the broker-dealer files Form 211 with FINRA, representing that it has met all requirements under Rule 15c2-11 of the '34 Act.

For exchange-listed stocks, trading will generally resume when the SEC suspension ends.

> ***Knopman Note:*** Here is a summary of key trading halt rules:
>
> - The SEC can suspend trading in any stock for up to 10 business days as necessary to protect investors and the marketplace (e.g., for late or inaccurate filings, or to investigate potential market manipulation).
> - The SEC can halt all trading on any exchange for 90 calendar days with notice to the President of the United States.
> - In addition to FINRA-, SEC-, and Nasdaq-imposed halts, other reasons for a halt in trading are circuit breaker halts and limit up/limit down, which are both discussed in this chapter.
> - A market maker that quotes an OTC equity that was subject to a 10-day, SEC trading suspension must refile Form 211 to resume quotations.

3.5 Limit Up/Limit Down (LULD)

To address **extraordinary volatility** in NMS stocks, the SEC implemented rules that limit how quickly an individual stock price can move up or down as compared to its recent trading value. These rules, called **limit up/limit down (LULD)**, restrict a stock's price from moving more than a specified percentage away from its five-minute moving average. Limit up/limit down is designed to protect investors and promote fair and orderly markets. In adopting these rules, the regulators balanced the competing goals of allowing stock prices to freely respond to market sentiment and preventing prices from moving outside a reasonable range within a short time period.

> ***Knopman Note:*** The purpose of limit up/limit down (LULD) is to prevent extraordinary volatility in National Market System (NMS) stocks.

3.5.1 Reference Price

LULD prevents trading in NMS stocks outside of specified price bands. Each band is set as a percentage based off the stock's reference price. The **reference price** is the security's average last sales price in the preceding five-minute period, i.e., the **five-minute moving average**.

The five-minute moving average is recalculated every 30 seconds. However, a reference price is only updated if a new reference price is at least 1% higher or lower than the old one.

Example

At 10:30 the reference price is $98.16. At 10:30:30 the five-minute moving average is calculated as $98.50. The reference price will remain at $98.16 since the new five-minute moving average has not changed by more than 1% as compared to the current reference price.

3.5.2 LULD Bands

The table below summarizes the LULD bands. Tier 1 NMS securities consist of S&P 500 and Russell 1000 components (equities) and selected exchange-traded products. Tier 2 consists of all other NMS stocks. The LULD **bands** are in effect during normal market hours and double during the market open and close (9:30–9:45 am and 3:35–4:00 pm, ET).

Securities	Price Band % (Doubled at the Open/Close)
Tier 1 and 2 NMS securities with reference prices above $3	5% for Tier 1 (10% at the open/close) 10% for Tier 2 (20% at the open/close)
Tier 1 and 2 NMS securities with reference prices from $0.75 to $3	20% (40% at the open/close)
Tier 1 and 2 NMS securities with reference prices less than $0.75	The lesser of $0.15 or 75% ($0.30 or 75% at the open/close)

Knopman Note: LULD bands are typically 5% for S&P 500 and Russell 1000 stocks and 10% for all other NMS stocks.

3.5.2.1 Limit State

If a quote is entered that moves the national best offer price to the lower band (without crossing the market), or the national best bid price to the upper band (without crossing the market), the security will enter a **limit state** for 15 seconds.

Example

A Tier 1 stock has a reference price of $13. An offer (to sell) is entered into the system at $12.35; because this quote is at the 5% band ($13 × 0.95), the quote triggers a 15-second limit state. For the next 15 seconds, trading can continue within the band, but if the quote remains at the band for 15 seconds, then a five-minute trading halt will begin.

A limit state can end in two ways:

- If the quote causing the limit state is executed
- If the quote causing the limit state is cancelled or modified

If the national best bid remains at the upper band or the national best offer remains at the lower band for 15 seconds, trading is automatically halted in that security for at least five minutes, in a **volatility trading pause**.

Knopman Note: What happens in a limit state?

- No new reference prices or price bands are calculated.
- Trading continues within the price bands.
- The stock can exit a limit state when the entire size of all limit state quotes is cancelled or executed during the 15 seconds.
- If the quote remains at or outside the band for 15 seconds, a five-minute pause is triggered by the primary listing exchange.

If an order is entered that is priced aggressively outside the band, most trading systems will adjust the price of the order to the band—commonly called a **price slide**. The stock will subsequently enter a limit state.

Example

XYZ, an S&P 500 stock, has a reference price of $50. Therefore, the 5% band is down to $47.50 and up to $52.50. A trader subsequently enters a bid at $53. The order is subject to a price slide down to $52.50, and a 15-second limit state begins.

3.5.2.2 Straddle State

A **straddle state** exists when the edge of the band is between the best bid and best offer.

Example

The reference price for an S&P 500 stock is $50. Therefore, the 5% band is down to 47.50 and up to 52.50. If the NBBO is 52.45–.55, this is a straddle state.

When a stock is in a straddle state, the exchange will monitor trading in the security and halt trading if necessary. If, in the preceding example, the best bid were to move up to 52.50, the stock would then enter a 15-second limit state.

> ***Knopman Note:*** Under LULD, a security is in a straddle state if the bid and offer are on either side of the price band. Under a straddle state, the exchange will monitor conditions and implement a pause for anything abnormal.

3.5.3 LULD Halt

During the five-minute volatility trading pause, no trading may occur but quotes may be updated and orders can be accepted. The halt can end after the mandatory five minutes when the primary market reports a **re-opening price**. If no re-opening price is reported by the primary market within 10 minutes, other trading centers and exchanges may resume trading the stock at their own discretion.

3.5.4 FINRA Rules Relating to LULD

Once the SEC adopted LULD to address extraordinary volatility, FINRA adopted rules to ensure that all member firms have policies and procedures to comply with the plan. Specifically, FINRA Rule 6190 prohibits:

- The execution of trades at prices that are outside the bands
- The display of quotes that are outside the bands, and
- The execution of trades in an NMS stock during a volatility trading pause (bids and offers may still be displayed during a volatility trading pause)

3.5.5 Exceptions from LULD Bands

Certain trades are excluded from LULD price bands and can execute outside the bands.

The following are from the list of exemptions from the Trade-Through Rule under Regulation NMS Rule 611, but note that not all of the trade-through exceptions are also LULD exceptions—only those listed below.

These trades *can* be executed outside LULD bands:

- **Non-regular way settlement**—The trade is not a regular way contract (T + 2).
- **Benchmark/derivatively priced**—The transaction was the execution of an order 1) at a price that was not based, directly or indirectly, on the quoted price of the NMS stock at the time of execution and 2) for which the material terms were not reasonably determinable at the time a commitment to execute the order was made.
- **Stop stock transaction**—An order where a broker-dealer offers a customer a specific price for a transaction, along with the opportunity for the customer to find a better price elsewhere.

- A **qualified contingent trade** consists of two or more component orders, in which at least one component order is in an NMS stock, all components are effected with a price contingency, and the execution of one component is contingent on all other components.
- An **error correction trade** occurs when a trading center discovers an error and modifies the order, or executes a new order, at a price consistent with the parties' original understanding of how the order should have been handled.
- A **print protection trade** allows a trading center to correct a trade so that a displayed price can be offered to customers when trades are subsequently reported at prices inferior to the displayed price.

3.6 Market-Wide Circuit Breakers

Just as regulators and exchanges have the authority to halt trading in a particular stock, they can also halt trading in all equities. FINRA Rule 6121 gives FINRA the authority to impose a market-wide **circuit breaker** on all NMS stock trading off the exchange (that is, FINRA can halt all OTC trading of NMS stocks):

- If other major securities markets (e.g., the exchanges) initiate market-wide trading halts in response to their rules or extraordinary market conditions, or
- If directed to do so by the SEC

Extraordinary market conditions are triggered by a Level 1, 2, or 3 market decline. Each level is measured by the decline in the value of the S&P 500 Index from the previous trading day's close. The circuit breaker rules are in effect during normal market hours.

A **Level 1** halt is triggered by a 7% decline in the S&P 500 Index before 3:25 pm. The circuit breaker halts all equity trading for 15 minutes. There is no Level 1 circuit breaker after 3:25, and there can be only one Level 1 halt per trading day.

Example

At 1:00 pm, the S&P 500 falls by 7%, measured from the previous day's close. The Level 1 circuit breaker continues until 1:15. Even if the market rallies, and then declines, recrossing the 7% Level 1 circuit breaker, there will not be a second Level 1 trading halt.

A **Level 2** halt is triggered by a 13% decline before 3:25 pm. The circuit breaker halts all equity trading for 15 minutes. There is no Level 2 circuit breaker after 3:25, and there can be only one Level 2 halt per trading day.

Example

The S&P 500 falls by 7%, triggering a 15-minute Level 1 trading halt. At the end of the halt, it re-opens even lower, drifting down to a 13% decline at 2:00 pm. At that point, a Level 2 halt is triggered. It too will last 15 minutes. Unless a Level 3 halt is triggered, the market will re-open and continue trading through the close.

A **Level 3** halt is triggered by a 20% decline during market hours. All trading is halted and will not resume for the rest of the day.

> ***Knopman Note:*** If a Level 3 halt occurs, FINRA will halt trading for the remainder of the trading day. In this situation, all market-on-close (MOC) orders are canceled and the official closing price will be the last trade executed before the halt. Trading will resume at the open the next market day.

> ***Knopman Note:*** On the exam, they could ask you to calculate how far the S&P 500 needs to fall for a Level 3 halt to be triggered.
>
> For example, assume today's S&P 500 opening price is 3,600, which is down 10% from the previous day's closing price.
>
> - To calculate the previous day's closing price, divide today's opening price by (100% - percentage drop from the previous day's closing price).
> - Previous day's closing price = 3,600/(100% - 10%).
> - Previous day's closing price = 4,000.
> - Next, to calculate the market price where there would be a 20% decline, multiply the previous day's closing price by (100% - 20%), which is 4,000 x (100% - 20%) = 3,200.
> - If the S&P 500 drops to 3,200 (a 20% decline against yesterday's close) it will trigger a Level 3 trading halt for the remainder of the day.

At most, one Level 1, one Level 2, and one Level 3 halt can happen in a single trading day.

These circuit breaker rules apply to all trading on exchanges and in OTC markets. Members must halt quoting and trading in all OTC equities at the same time the market-wide trading halt in NMS stocks is publicly disseminated. However, all orders remain on the books, unless cancelled by the customer.

Quoting is permitted in the last five minutes of a Level 1 or Level 2 halt, but not at all during a Level 3 halt. During a Level 1 or 2 halt, customers may enter regular market orders, limit orders, and any type of time-in-force (e.g., good 'til cancelled) instructions—these order types will be discussed in detail shortly.

To resume trading after a Level 1 or Level 2 halt, Nasdaq will use a halt cross process.

> ***Knopman Note:*** While Nasdaq allows quotes to be entered, trading is not permitted during the last five minutes of the 15-minute Level 1 market decline (7% decline) or Level 2 market decline (13% decline) trading halt.

Progress Check

1. During market hours, what LULD price band exists for Tier 1 stocks trading with reference prices above $3?

   A. 3%
   B. 5%
   C. 7%
   D. 10%

2. During a Nasdaq halt cross, how long does the quote-only period usually last?

   A. One minute
   B. Five minutes
   C. 10 minutes
   D. 20 minutes

3. Under the Limit Up/Limit Down Rule, a security will exit the 15-second limit state when:

   A. the security re-opens after the five-minute trading pause.
   B. the entire size of all limit state quotes is executed or cancelled.
   C. the NBBO is resting on the limit price band.
   D. a new reference price is disseminated by the Securities Information Processor (SIP).

4. On Tuesday, the S&P 500 opens at 4,000, which is down 8% from the previous day's close. To what value does the S&P 500 need to fall for a level 3 halt to be triggered?

   A. 3,200
   B. 3,478.26
   C. 3,480
   D. 3,782.61

5. FINRA will halt trading in U.S.-traded ADRs if a foreign regulator halts the underlying stock for:

   A. public-interest or news-pending reasons.
   B. foreign regulatory filing deficiency.
   C. foreign exchange operational reasons.
   D. either public-interest, news-pending reasons, or foreign regulatory filing deficiency.

Progress Check—Solutions

1. **(B)** The most important LULD bands to remember are those for securities with reference prices above $3 during market hours. They are 5% for Tier 1 and 10% for Tier 2.
2. **(B)** The quote-only period usually lasts five minutes. High volatility may trigger a one-minute automatic extension.
3. **(B)** In the Limit Up/Limit Down Rule, a security will enter a limit state when the NBBO is resting on the limit price band. This condition can last for up to 15 seconds. Thereafter, one of two things will happen. If the entire size of all limit state quotes is executed or cancelled, the limit state will end. However, if after 15 seconds the NBBO is still resting on the limit price band, a five-minute trading pause will be triggered.
4. **(B)** If the S&P falls 20% from the prior day's close, then it will trigger a Level 3 trading halt for the remainder of the day. To calculate the previous day's closing price, divide today's opening price of 4,000 by (100% - the 8% drop from the prior close), which equals 4,000 / (100% - 8%) or 4,347.83. Next, to calculate the market price where there would be a 20% decline, multiply the previous day's closing price of 4,347.83 by (100% - 20% decline), which equals 3,478.26.
5. **(A)** FINRA will halt trading in U.S.-traded ADRs if a foreign regulator halts the underlying stock for public-interest or news-pending reasons, but not solely for a foreign regulatory deficiency or operational reason.

3.7 Clearly Erroneous Transactions

What is a **clearly erroneous transaction**? Under FINRA Rules 11890–11894, it is a trade where there is an obvious error, such as incorrect price, number of shares, or security identification. If FINRA determines a trade is clearly erroneous, it has the authority to cancel the trade.

In making decisions about whether trades are clearly erroneous, FINRA takes into account a variety of factors that will be discussed below. FINRA may unilaterally cancel clearly erroneous trades, or a member may request that FINRA review a trade if it believes the trade is clearly erroneous. An assertion by a member that it made a mistake in entering an order or quote may not be sufficient to establish that a transaction is clearly erroneous, especially if it is due to failure to pay attention to an order or to update a quote.

FINRA's authority to cancel clearly erroneous trades, however, is narrow in scope; only trades that are clearly erroneous may be cancelled. FINRA cannot cancel unauthorized trades or trades executed as a result of market manipulation scams. In these cases, investors must pursue other remedies, such as litigation against the manipulator.

Knopman Note: If a trade is erroneous, regulators may review the trade and:

1. Leave the trade as is
2. Modify the terms of the trade, or
3. Break (cancel) the trade

Regulators may not take an erroneous trade and assign it to a new market maker.

When determining whether a transaction is clearly erroneous, the main consideration is the price of the transaction compared to the reference price. Other factors include relevant news affecting a security or securities, periods of extreme market volatility, sustained illiquidity, and widespread system issues.

3.7.1 Exchange-Listed Securities

FINRA evaluates clearly erroneous trades in exchange-listed securities based on a number of different categories.

3.7.1.1 Numerical Guidelines

FINRA may deem a trade in an individual security clearly erroneous if the trade occurs more than a certain percentage away (the **percentage band**) from the security's reference price. In this case, the **reference price** is equal to the consolidated last sale immediately prior to the trade under review. The specified bands vary based on the price of the security and whether the trade occurred during or outside normal market hours. The bands are shown in the table below.

Reference Price for Listed Equities	Bands for Trades During Normal Market Hours (9:30 am–4:00 pm, ET) % Difference from Reference Price	Bands for Trades Outside Normal Market Hours (Before 9:30 am; after 4:00 pm) % Difference from Reference Price *Bands double outside market hours.*
Greater than $0.00 up to and including $25	10%	20%
Greater than $25 up to and including $50	5%	10%
Greater than $50	3%	6%
Note: The numerical guidelines for leveraged exchange-traded products (ETFs and ETNs) are multiplied by the product's leverage multiplier. Example: In a 2x leveraged ETF trading at $30 per share, the regular band of 5% is multiplied by 2 to equal 10%.		

Example

The reference price of a stock is $35. The band of acceptably priced trades is 5% above and below $35—from $33.25 up to $36.75. The stock then trades during normal market hours at $38. Because this trade is above the top of the band, FINRA will likely consider it clearly erroneous under the clearly erroneous numerical guidelines and cancel the trade.

Example

The reference price of a stock is $12. The market is closed; therefore, the band is 20% above and below $12—from $9.60 to $14.40. After-hours, it trades at $10. It is not outside the band. Therefore, FINRA will not consider it clearly erroneous under the numerical guidelines.

The band sets both a floor and ceiling price. A trade must be **outside** the band—below the floor or above the ceiling—for FINRA to consider the trade clearly erroneous.

> ***Knopman Note:*** During normal market hours, any trade in an NMS stock with a price greater than $50 outside a 3% band from the reference price will be deemed clearly erroneous.

> ***Knopman Note:*** OTC transactions (third market) that are clearly erroneous are addressed by FINRA's Market Regulation Department, not Nasdaq.

3.7.1.2 Multi-Stock Events

FINRA takes a slightly different approach when multiple stocks trade outside a specific band within a five-minute period (a multi-stock event). The regulatory stance is to allow greater price movement when more stocks are all trading in a particular direction, as it is more likely to be a valid market correction than an erroneous trade. The balance the regulators reached was to set different bands depending on the number of stocks in the event. Deeming them clearly erroneous, FINRA will nullify all transactions at prices equal to or higher than the relevant band (10% or 30%) above or below the reference price. The reference price for a multi-stock event will be determined by FINRA and other regulators on a case-by-case basis.

Number of Stocks in the Event	Bands for Multi-Stock Events
5–19 securities	10% from reference price
20 or more securities	30% from reference price

3.7.1.3 Multi-Day Event

A series of trades in one security over one or more trading days may be viewed as a single event if all such trades were made based on the same incorrect or misinterpreted information that resulted in a severe valuation error. FINRA may nullify all transactions that occurred during the multi-day event by declaring such an event not later than the start of trading on the day following the last identified transaction. However, any multi-day events cannot include transactions that 1) have settled or 2) are in connection with an IPO.

Example

A FINRA officer observes an unusual pattern of trades that began on Tuesday and concluded on Friday. The officer may nullify all of these trades, provided that they have not yet settled, by declaring a multi-day event no later than the start of trading on the following Monday.

3.7.1.4 Trading Halts, Suspensions, or Pauses

A FINRA officer may nullify trades that occur after the primary listing market for a security that has declared a halt, suspension, or pause and before trading resumes. In general, cancellation must occur within 30 minutes of the detection of the erroneous transaction. In no case may action be taken later than the start of normal market hours on the next trading day.

3.7.1.5 Notification by Nasdaq Market Makers

Under Nasdaq Rule 11890, when a member firm believes it has been a party to a clearly erroneous trade, it must submit a written complaint to Nasdaq MarketWatch within 30 minutes of execution.

For trades that were routed to another market center or exchange for execution, the participant has 30 additional minutes, 60 minutes total, to file a complaint. The numerical guidelines are equal to those published by FINRA.

For outlier trades, participants are given 60 minutes (an extra 30 minutes) to file a complaint with Nasdaq. Nasdaq defines an **outlier trade** as follows:

- The execution price is greater than three times the guidelines for a clearly erroneous trade, as detailed previously in this section. For example, a trade that occurs 15% away from the reference price for a stock priced between $25 and $50 during normal market hours would be deemed an outlier trade, or
- A transaction that breaches the 52-week high or 52-week low for a security. In this case, Nasdaq will examine further to determine whether the trade is clearly erroneous.

> ***Knopman Note:*** The 30-minute deadline for clearly erroneous trades applies at all times—even when the market is closed. For example, if a trade is executed at 7:15 pm, and the market maker discovers it to be clearly erroneous, Nasdaq MarketWatch must be notified by 7:45 pm.

> ***Knopman Note:*** OTC transactions (third market) that are clearly erroneous are addressed by FINRA's Market Regulation Department, not Nasdaq.

3.7.2 Clearly Erroneous Trades in OTC Equities

For OTC equities, the clearly erroneous **numerical guidelines** (under FINRA Rule 11890) work much the same as in listed equities, but the reference prices and bands are different. The reference price is the prevailing market price immediately prior to the time of a trade. The determination of the prevailing market price varies based on how active the market is for the security, but in an active market it is the inside market and in an inactive market it is the firm's contemporaneous price. Also, the bands are the same during and outside normal market hours—i.e., the bands do not double outside market hours. The table below summarizes.

Reference Price	Numerical Guidelines (% Difference from Reference Price)
$0.9999 and under	20%
$1–$4.9999	Low end of band: 20% High end of band: 10%
$5–$74.9999	10%
$75–$199.9999	Low end of band: 10% High end of band: 5%
$200–$499.9999	5%
$500–$999.9999	Low end of band: 5% High end of band: 3%

As indicated in this table, for three of the ranges, the percentage deviation is different at the top and bottom of the range. The intent is to smooth the deviations from tier to tier. The larger percentage applies to the lower price of the tier, while the smaller percentage applies to the higher end of the tier. For prices in the range, the percentage generally changes in a linear fashion, though FINRA has discretion to apply the range differently.

Example

The prevailing market price of an OTC equity was $13.60 just before the time of a trade—this is the reference price. A trade then occurs at $12.45. The band runs 10% on either side of the reference price—from $12.24 to $14.96. The trade falls within the band, so it is not clearly erroneous under the numerical guidelines.

Example

The prevailing market price of an OTC equity was $80 just before the time of a trade. The band runs from 10% at the low end up to 5% on the high end. With a reference price of $80, a trade could likely take place at 7%, 8%, or even 9% away from the reference price because the $80 reference price is at the low end of the band, and trades less than 10% away from the reference price are not clearly erroneous.

A reference price of $190 indicates trades above 5% from the reference price are at greater risk for being declared clearly erroneous because the price is at the top end of the band.

3.7.2.1 Other Reasons to Nullify OTC Trades

In addition to the numerical guidelines, FINRA may consider additional factors to nullify clearly erroneous trades. They include:

- System malfunction or disruption
- Volume and volatility data for the security
- Moves in derivatives greater than 100% in the direction of a tracking index
- Market-moving news about the security
- Any related halts in trading of the security
- Whether the security is an IPO
- Whether the security was subject to a split, a reorganization, or another corporate action
- Overall market conditions
- Opening and late-session executions
- The validity of the consolidated tapes, trades, and quotes
- Considerations of primary market indications
- Executions inconsistent with regular trading patterns in the stock

FINRA has indicated it will use its clearly erroneous authority only in very limited circumstances in the OTC equity market. Intervention is less common than with listed equities because trading in OTC equities is often volatile based on the underlying value and liquidity (or lack thereof) of the securities. In most cases involving OTC equities, FINRA expects trading parties to settle disputes privately, without its intervention.

3.7.3 Appealing Clearly Erroneous Decisions

Members may appeal FINRA's decision to nullify a clearly erroneous trade. The appeal must be made in writing to FINRA's Uniform Practice Code (UPC) Committee and must be received within 30 minutes after the appealing party has been given notice of a trade nullification. At this point, the counterparty is notified, and both parties may submit supporting documents. Most appeals are resolved on the same trading day as execution for listed equities and no later than two trading days following execution for OTC equities.

The UPC Committee's decision is final and binding on both parties.

3.7.4 Obvious Error Rule for Transactions in Listed Options

In addition to its equity exchanges, Nasdaq hosts a listed options trading platform. Just as trades in listed equities can be deemed clearly erroneous and cancelled, a similar regime exists for listed options trades that are **obvious errors**. Nasdaq generally considers a listed option transaction to be an obvious error if the execution price of a transaction (i.e., the premium) falls outside certain prescribed price bands based on the **theoretical price** of the option.

Theoretical price is determined either by the inside market for options that trade on Nasdaq and at least one other exchange, or by Nasdaq MarketWatch for options that do not.

The allowable price bands are shown below.

Theoretical Price of the Option	Allowable Price Bands
Less than \$2	\$0.25
\$2–\$5	\$0.40
\$5.01–\$10	\$0.50
\$10.01–\$20	\$0.80
\$20.01+	\$1

For Nasdaq-listed options, the bands are expressed in **dollars** away from a theoretical price—not percentages away from a reference price, as for equities.

Example

A call option on 100 shares of stock trades at \$2.53 at a time when its theoretical price is \$2.07. The band in this case is 40 cents on either side of \$2.07. Thus, the permissible premium band is \$1.67 to \$2.47. Since \$2.53 falls outside the band, Nasdaq will consider it an obvious error and will likely adjust the trade.

Example

An S&P 500 Index option has a theoretical price of $21. The obvious error band of $1 permits the option contract to trade for as low as $20 and as high as $22. If the option traded at $21.50, it would fall within the band and would not be defined as an obvious error.

3.7.4.1 Nasdaq Resolution of Obvious Errors

Nasdaq's resolution process for options is somewhat different than for clearly erroneous equity trades. Rather than nullifying the trade, Nasdaq will generally adjust obvious error purchases to their theoretical price plus 15 cents if the theoretical price is under $3, or plus 30 cents if the theoretical price is at or above $3. The adjustment is the opposite for obvious error sell trades—minus 15 cents for under $3; minus 30 cents for above $3.

Example

An option has a theoretical price of $4.20 and is sold for $3.67. The trade is outside the 40-cent band, which begins at $3.80. The trade price (premium) will be adjusted down from the theoretical price by 30 cents, to $3.90.

Note that if one party to the obvious error is a customer (i.e., not a broker-dealer), and the adjustment would result in an execution price violating the customer's limit price, then the trade will canceled as opposed to adjusted.

While every option transaction has both a buyer and a seller on opposite sides, only one of the two sides can be an obvious error. In the example above, the obvious error works to the detriment of the buyer, because the seller gets a beneficial adjustment of 23 cents (from $3.67 up to $3.90). It's important to note that adjustments are always made from the theoretical price, not the transaction price.

Knopman Note: The adjustment made for an obvious options error is always plus or minus 15 or 30 cents depending on the theoretical price. This figure differs from the allowable price bands discussed above.

3.7.4.2 Nasdaq's No-Bid Rule

The second reason Nasdaq will cancel an options trade, deeming it an obvious error, relates to whether the options contract was being quoted prior to the trade. Nasdaq will deem a trade an obvious error if:

1. The trade was quoted **no bid** for at least five seconds before the execution, and
2. Options of the same class one strike price below (for calls) or one strike price above (for puts) were also quoted **no bid**

A **class** of options is the set of either calls or puts on a given equity or index. For example, all call expirations and strike prices currently trading on Apple stock form one class. All puts form another.

Example

If the January ABC 50 calls were not being quoted, and the January 45 calls were also not being quoted, a trade for the January 50 calls would be an obvious error and would be nullified.

Knopman Note: It takes at least two options of the same class quoted no bid to trigger an obvious error.

3.7.4.3 Obvious Error Procedure: Adjust or Bust

A party that believes that it participated in a transaction that was the result of an obvious error must notify Nasdaq. If the obvious error involved a customer order, a filing must be made within 30 minutes of execution. For trades only involving broker-dealers, the filing must be received within 15 minutes of the execution time.

Alternatively, if both the buyer and seller mutually agree that the trade was executed at an erroneous price, then a trade may be nullified or adjusted on terms that both parties agree, as long this agreement is conveyed to Nasdaq prior to 8:30 am on the first trading day following the execution.

3.7.4.4 Catastrophic Errors

Nasdaq defines a **catastrophic error** as one where the transaction price is even further away from the theoretical price than the obvious error thresholds. Catastrophic errors are defined by this table:

Theoretical Price	Minimum Amount
Below \$2	\$0.50
\$2 to \$5	\$1
Above \$5 to \$10	\$1.50
Above \$10 to \$20	\$2
Above \$20	\$2.50

If a party believes that it participated in catastrophic error transactions, it must notify MarketWatch by 8:30 am, ET, on the next trading day, or sooner if the options are expiring that day.

For catastrophic errors, Nasdaq will adjust the price of the transaction via the following table:

Theoretical Price	Adjustment Amount
Below $2	$0.50
$2 to $5	$1
Above $5 to $10	$1.50
Above $10 to $20	$2
Above $20	$2.50

The adjustment is made from the theoretical price. Catastrophic buy errors (i.e., above the theoretical price) are adjusted downward to the theoretical price plus the amount in the table. Catastrophic sell errors are adjusted upward to the theoretical price less the amount in the table. This is the same process for obvious errors, but the increments by which the orders are adjusted are different.

3.8 Regulation SHO—Short Sales

Regulation SHO governs short sales. A **short sale** is a transaction where an investor sells borrowed securities in anticipation of a decline in price. A short-seller makes money if the stock declines in price. The investor is required to return an equal number of shares to the lender at some point in the future. The profit that the investor receives is equal to the value of the shares sold less the cost of repurchasing those borrowed shares.

Example

Jesse sells 2,000 shares short at $25 each. She receives $50,000 for the sale (2,000 Shares × $25). If the shares fall to $20 and she closes out the position, she will purchase 2,000 shares at $20 each ($40,000), and her profit will be the difference between the amount received from the initial short sale ($50,000) and the subsequent amount paid to close the position ($40,000). So her gain will be $10,000.

If, however, the price of the security goes up, Jesse will lose money. If she again sells the shares short at $25 per share, but later closes out the position when the stock is trading at $32 per share, she will have lost $7 per share for a total loss of $14,000 (proceeds of $50,000 less the closing purchase of $64,000).

3.8.1 Order Marking Requirements

The order marking requirements of Reg SHO Rule 200 require broker-dealers to mark all sale orders **long**, **short**, or **short exempt**. Unless the selling customer is deemed to own the stock, the order must be marked **short** or **short exempt** (discussed below). An investor is deemed to own stock (i.e., long) if they:

- Have title to the security
- Have entered into a contract to purchase the security but have not yet received the shares (i.e., unsettled purchase)
- Own a convertible bond or convertible preferred stock and have tendered conversion instructions

Knopman Note: A person is deemed to own stock (for long or short sale order marking) if the person owns a convertible security and has given conversion instructions.

Similarly, for an investor who owns convertible preferred stock and places an order to sell shares of common stock, the order ticket must be marked short unless the investor has tendered the preferred shares for conversion.

- Own a call option or right or warrant on the security and have exercised the derivative
- Hold security futures to purchase the stock and have received notice that the shares will be physically delivered

Knopman Note: An investor selling stock futures is not required to borrow the shares first, since delivery is not made immediately.

In addition to meeting the above criteria, the broker-dealer must have the security in its possession or reasonably believe that it will prior to settlement.

If these criteria are met, the order ticket may be marked long. If the investor cannot satisfy any of the criteria for owning the stock, or the broker-dealer does not believe it will be able to deliver the shares on settlement, any order to sell stock must be marked as a short sale.

Furthermore, in order to mark a ticket a long sale, the customer must be **net long** in the stock after aggregating all long and short positions.

Example

Joe is short 400 shares of XYZ stock and has exercised call options allowing him to purchase 1,000 shares of stock. Therefore, Joe's net long position is 600 shares. If Joe subsequently places an order to sell 800 shares of stock, only 600 of those shares can be marked as a long sale.

Example

A seller is net long 1,000 shares and wants to simultaneously enter multiple orders to sell 1,000 shares. One sale order could be marked long, while all other sale orders must be marked short.

Example

If a MM acquires a 350,000-share block position and sells (writes) 355,000 options to cover, the market maker is net short.

350,000 Long Shares
−355,000 Short Options Exposure

−5,000 (5,000 Shares Short)

Knopman Note: A customer who is long 8,000 shares of stock and is also short 30 call options is net long 5,000 shares, because each call option is worth 100 shares.

Knopman Note: A firm must take into account its trades during the day to determine whether it is long or short in a security. For example, if BD A begins the day long 2,000 shares of ABC, and during the day it enters three orders—sell 1,500 ABC, buy 1,500 ABC, and sell 500 ABC—it will still be long (1,500 shares) at the end of the day.

3.8.1.1 Broker-Dealer Short Sales

A broker-dealer is given additional flexibility for marking order tickets when selling for its own account. Specifically, a broker-dealer is deemed to own a security (i.e., long) if:

- It acquired the shares while acting as a block positioner (i.e., trade of $200,000 or more) and has subsequently established a short position to hedge or arbitrage the block
- It is unwinding an index arbitrage position using futures or options contracts
- It is short the stock as a result of arbitrage or hedging activities
- The sale occurs on a day when the NYSE is down less than 2% from the prior day's close

To summarize, these are additional circumstances where a broker-dealer can sell stock for its own account and can mark the order ticket as a long sale.

Knopman Note: If a broker-dealer acquires 500,000 shares as part of a block trade and subsequently sells 6,000 call options, it would still be net long since the shares were acquired in a block and the call options would be deemed bona fide hedging activity.

3.8.1.2 Broker-Dealer Aggregation of Positions

A broker-dealer may have multiple divisions buying and selling securities for its own account (e.g., proprietary trading) and in connection with its role as a market maker. In general, a firm must aggregate all long and short positions firm-wide to determine how to mark its own order tickets. If the firm overall is net short, all divisions must mark all sale tickets as short sales, even if that particular division or unit is net long.

However, a broker-dealer may qualify to have its various trading departments independently determine their long or short positions if:

- Traders are only assigned to one independent trading unit at any given time
- Traders in each independent trading unit employ their own trading strategies and do not coordinate their trading plans with other trading units
- The firm has documented each aggregation unit and the independent trading objectives of each unit
- The firm supports the autonomy of each trading unit, and
- At the time a sell order is entered, each independent aggregation unit determines its net position for the security

All criteria must be satisfied for the firm to use independent unit aggregation.

> ***Knopman Note:*** Any time the exam refers to an aggregated unit for a short sale, the underlying concept, in summary, is that the firm must calculate long and short positions across the entire firm to see whether it is net long or net short.

> ***Knopman Note:*** When a broker-dealer is determining its own net long or short position in a security, it must aggregate all of its positions in that security unless it qualifies for independent trading unit aggregation. Independent aggregation allows each trading desk (i.e., unit) to determine its own position, if all of the below requirements are met:
>
> 1. The broker-dealer has a written plan to identify each unit.
> 2. Each unit determines its own net position for every security.
> 3. Traders are assigned to only one unit.
> 4. Traders from one unit do not coordinate with traders in another unit.

> ***Knopman Note:*** If a broker-dealer qualifies for independent unit aggregation, a unit can have a net short position in a security even if the firm is net long that security.

3.8.2 Short Sale Price Restrictions

Under Reg SHO Rule 201 (the Alternative Uptick Rule), if the price of an NMS stock declines 10% from the previous day's closing price (in the security's primary listing market), short sales will be subject to price restrictions. The only permissible short sales once price restrictions are triggered are those at a price above the national best bid (NBB). The price restriction lasts for the remainder of that trading day and the entire next trading day, subject to limited exceptions for arbitrage (hedging) and odd-lot transactions.

Example

ABC common stock closes on Monday at $100. During the market session on Tuesday, the price of the stock drops to $90, a 10% decline from the previous day's close. For the remainder of Tuesday and all day Wednesday, price restrictions are triggered and no short sales are permitted, unless the sales price is higher than the NBB. Thus, during the price restriction period, if the NBBO is $88.50–$88.75, short sales could only be effected at $88.51 or higher.

If the price of a stock subject to Rule 201's circuit breaker continues to fall such that it drops 10% from the prior day's close, the price restriction is re-triggered and will remain in effect for the remainder of that trading day as well as the next. Therefore, rapidly declining securities may end up being subject to price restrictions for more than two trading days.

Knopman Note: Under Reg SHO, if a stock falls by 10% on Monday and then an additional 10% on Tuesday, the short sale price restriction will apply to Wednesday's trading day and be lifted at the close of business on Wednesday (unless the price also falls by 10% on Wednesday, in which case it would be further extended).

Compliance with Rule 201 requires firms and trading centers to have policies and procedures to ensure short sale price restrictions are met. It is the obligation of the firm and trading center to determine whether a short sale order may be executed or displayed and to avoid impermissibly priced short sale orders while a price restriction remains in effect.

Knopman Note: Key takeaway from the uptick rule: If a stock's price declines 10% from the prior day's close, no short sales may be executed in that stock for the remainder of that day or the next trading day. An exception is available for short sales above the NBB, which can be executed and marked short exempt. The short sale circuit breaker only applies during normal market hours (9:30 am–4:00 pm).

3.8.3 Short Exempt

A **short exempt** sale is a short sale order that is exempt from the Reg SHO Rule 201 price restriction. Short sale orders may only be marked short exempt if the transaction is:

1. Executed at a price above the current national best bid at the time of submission, *or*

2. Effected by a long owner who intends to deliver the security as soon as all restrictions on delivery have been removed
3. Made by a market maker for customer odd-lot orders (less than 100 shares)
4. Considered an arbitrage or hedging trade of domestic or foreign securities (including depositary receipts)
5. Connected with an over-allotment in a syndication of a new issue (IPO or follow-on)
6. Made by a broker-dealer on a riskless principal basis

> ***Knopman Note:*** Orders tickets may be marked short exempt when a broker-dealer is executing a riskless principal trade for a customer provided that the customer's order is in place prior to the offsetting transaction and both legs of the trade are executed within 60 seconds of each other. Also, the broker dealer must maintain records that readily reconstruct the trades.

7. Considered a volume weighted average price (VWAP) transaction
8. Non-regular way trade

> ***Knopman Note:*** Other than the first scenario, which requires short sales to be executed at a price above the national best bid, all other short exempt scenarios (e.g., odd-lot orders, riskless principal, VWAP trades, etc.) can be executed at or below the best bid, even if the stock is otherwise subject to the circuit breaker rule due to a 10% decline.
>
> It is important to learn the circumstances under which an order ticket can be marked as short exempt. Note that a regular way trade is not listed as an acceptable exemption.

3.8.4 Borrowing and Delivery Requirements

Reg SHO Rule 203 addresses the delivery of shares at settlement, and the consequences for failure to make timely delivery.

3.8.4.1 Long Sales

For long sales, the broker-dealer must deliver the securities by the settlement date. Reg SHO prohibits borrowing stock to make delivery on a long sale, unless:

- The customer fails to deliver the securities to the broker-dealer in time to settle
- The security is being loaned to another broker-dealer, or
- A fail to deliver results from a good-faith mistake and buying the shares in the open market would create undue hardship

> ***Knopman Note:*** For long-term customers selling shares, a broker-dealer may rely on their assurances that they are long stock and can make delivery at settlement.

3.8.4.2 Short Sales, Locates, and Borrowing Lists

For short sales, the broker-dealer must also deliver the securities by the settlement date. When a broker-dealer executes a short sale, either for a customer or for its own account, it must know which shares it will deliver on settlement—this is sometimes referred to as having a **locate** on the security. This short sale requirement is satisfied if the firm:

- Has borrowed the security, or entered into a bona fide arrangement to borrow the security, or
- Has reasonable grounds to believe that the security can be borrowed so that it can be delivered on settlement

Broker-dealers can meet these locate requirements by either borrowing the security from a lender or by relying on lists of easy-to-borrow or available securities. Securities on such lists can be sold short without additional diligence, provided the lists are updated every 24 hours. Put differently, if a security is on an easy-to-borrow or available-securities list, the firm has reasonable grounds to believe that the security can be borrowed.

> ***Knopman Note:*** When executing a short sale, it is the introducing (or receiving) broker-dealer's obligation to obtain a locate. The executing and clearing firms need not get a locate.

The purpose of this rule is to prevent **naked short sales**, which occur when an investor sells shares short without having borrowed or arranged to borrow the stock.

Naked short sales lead to fails to deliver, discussed shortly, and can be used to manipulate the price of the stock. Investors wishing to drive down the price could, in theory, exert selling pressure by engaging in naked short sales of large quantities of shares.

> ***Knopman Note:*** A firm which cannot confirm that the shares are available to borrow (e.g., the firm cannot obtain a locate because it cannot reach its prime broker) may not execute a short sale for a customer.

3.8.4.3 Exemptions from the Locate Requirement

A broker-dealer is exempt from the locate requirement for short sales if:

- The broker-dealer has accepted an order to sell short an equity security from another broker-dealer. Here, the broker-dealer entering the order is required to locate the securities.

- Transactions are executed in accordance with bona fide market-making
- Transactions are executed by a specialist, block positioner, or dealer
- The order's customer has been determined to be long and intends to deliver the security once certain sale restrictions have expired or been removed (e.g., restricted shares sold under Rule 144 are having the legend lifted by the issuer's transfer agent). This exception to the locate requirement mandates that the seller complete the transaction within 35 calendar days. If the broker-dealer does not receive the securities, the broker-dealer must immediately buy in the customer or borrow the securities to make delivery on the 36th day.

Knopman Note: A broker-dealer does not need a locate on a sale if 1) the customer owns the stock and 2) the broker-dealer reasonably believes the security will be delivered as soon as all restrictions on delivery have been removed (e.g., restricted stock has its legend removed by a transfer agent).

Q: When are market makers excused from obtaining a locate for a short sale?

A: Market makers are excused from the locate requirement for their own short sales if the transaction is in connection with bona fide (legitimate or valid) market-making activities.

Q: Does every broker in the life of a trade need to execute a locate?

A: No, when executing a short sale, it is the introducing (or receiving) broker-dealer's obligation to obtain a locate. The executing and clearing firms need not get a locate.

3.8.4.4 Threshold Securities

A **threshold security** is an equity security that, for five consecutive settlement days, has had aggregate fail-to-deliver positions of 10,000 shares or more at a clearing firm, and those fails represent 0.5% or more of the issuer's outstanding securities.

If a broker-dealer has executed a transaction in a threshold security but has failed to deliver the security, certain consequences apply:

- If the fail persists for 13 consecutive settlement days, the broker-dealer must immediately close out the position by buying and delivering securities of a like kind and quantity on the 14th day.
- If the fail persists for no more than 13 consecutive settlement dates, and the broker-dealer has not delivered the securities (even though the rule requires it), the broker-dealer may not execute any short sales in the threshold security, for its own account or any customer's account, until it has borrowed the security that will be delivered. In this case, the available securities list cannot be used.

If a market maker cannot borrow a threshold security to execute transactions in connection with bona fide market-making activities, the market maker is entitled to an excused withdrawal from that security.

> ***Knopman Note:*** The "threshold security list," a list of securities with significant outstanding fails, is prepared and disseminated by the SRO that maintains the primary listing for the security.
>
> FINRA publishes a list of OTC threshold securities.
>
> Other SROs such as Nasdaq and NYSE publish their own threshold lists.

3.9 Close-Out Requirements

Reg SHO Rule 204 tightens the timeframes to close out fail-to-deliver positions. Because firms have to follow both Reg SHO Rule 203 and 204, the accelerated Rule 204 timeframes often supersede those of Rule 203.

In general, a fail to deliver occurs when the seller does not deliver securities by settlement. Rule 204 details the deadline for a failing firm to borrow or buy the securities to complete delivery.

If a firm has a fail-to-deliver position in any equity security at a registered clearing agency and does not close out the fail in accordance with Rule 204, the firm may not effect any short sales in the failed security for itself (including in its market-making capacity) or for any of its customers. An exception is available if the short sale is entered after the security has been borrowed or the seller has entered into a definitive borrowing arrangement to obtain the security. Once the failed position has been closed, the restriction on short sales is then lifted.

3.9.1 Closing Out Short Sales

Fails to deliver in a short sale must be closed out by the open of trading on the next business day after the failed settlement, i.e., T + 3 or Settlement + 1 (S + 1).

Example

On Monday, a customer enters an order to sell securities short that will settle T + 2 on Wednesday. Rule 204 requires that the firm deliver the securities on the settlement date. If the firm cannot make delivery on Wednesday, Rule 204 requires the firm to deliver the securities before the market opens on Thursday. The firm can either buy or borrow the securities to make delivery on Thursday.

> ***Knopman Note:*** For the closing out of short sales, it is important to note not only that the close out is required on T + 3, but also that it must be done at the beginning of the day.

3.9.2 Closing Out Long Sales

If the fail is a result of a long sale, the firm must close the fail no later than the beginning of regular trading hours on the third consecutive settlement day following the settlement date (T + 5, or S + 3).

Example

On Tuesday, a customer enters an order to sell securities long that will settle T + 2 on Thursday. Rule 204 requires that the firm deliver the securities on the settlement date. If the firm cannot make delivery on Thursday, Rule 204 requires the firm to deliver the securities before the market opens on the following Tuesday (T + 5): Friday is T + 3; next Monday is T + 4; next Tuesday is T + 5.

3.9.3 Close-Outs by Market Makers

If the fail (long or short) is attributable to bona fide market-making activities by a registered market maker, the participant must close the fail by no later than the beginning of regular trading hours on the third consecutive settlement day following the settlement date (T + 5), the same as for long sales.

3.9.4 Close-Outs in Restricted Stock

If the fail is a result of securities having restrictions that prevent good delivery (e.g., restricted stock under Rule 144), the firm must close out the fail after the 35th consecutive calendar day following the trade date (i.e., on the 36th calendar day).

3.9.5 Close-Out Summary Chart

Knopman Note: Candidates should be familiar with the following chart, which details the close-out requirements for various positions.

Type of Fail	Close-Out Requirement
Short sale	T + 3, before market opens
Long sale	T + 5, before market opens
Market maker fail (due to bona fide market-making activities)	T + 5, before market opens
Restrictions preventing good delivery (e.g., restricted stock)	After 35 calendar days (close-out on the 36th day)
Threshold security	After 13 settlement days (close-out on the 14th day)

3.10 Short Interest Reporting

Under FINRA Rule 4560, firms must maintain a record of both customer and firm short positions and file a **short interest report** twice per month. The report must detail all short positions that have settled as of the 15th and last trading day of each month. For member firms that engage a clearing or **prime broker**, it must be determined whether the firm itself or its clearing firm will make the short interest reports for the firm's short positions. The first report is due within two business days of the 15th of the month, and the second is due within two business days of the last trading day of the month.

> ***Knopman Note:*** A prime broker performs a suite of services on behalf of hedge funds and other large institutional clients. Examples of services include margin, settlement, position consolidation, and securities lending. However, prime brokers do not assist with anti-money laundering compliance. Prime brokers are required to maintain a minimum net capital of at least $1.5MM.

The report requires the following information:

- Member firm's gross short positions in each proprietary and customer account (i.e., firms should not net long and short positions)
- Short positions in all securities—including Nasdaq, NYSE, NYSE MKT, NYSE Arca, and OTC equity securities (though restricted stock under Rule 144 is excluded)

Positions are included only if the short positions have settled by the close of the FINRA-designated reporting settlement date.

It's important to note that short positions in non-equities and derivatives are not reported. Likewise, fails to receive are not considered short sales and are not reportable on a short interest report. Finally, if an underwriter oversells a new issue of securities with the intent to exercise a green shoe clause, the oversold shares are not required to be included in a short interest report.

3.11 Risk Management Controls for Brokers or Dealers

In 2010, the SEC adopted Rule 15c3-5 under the '34 Act. The rule requires broker-dealers who **provide market access** to establish, document, and maintain a system of **risk management controls** and **supervisory procedures**. These must be **reasonably designed** to manage the financial, regulatory, and other risks of the broker-dealer's business activities. The rule defines **market access** as access to trading in securities on a national securities exchange or an alternative trading system (ATS), by being a member of the exchange or subscribing to the ATS.

Knopman Note: The SEC Market Access Rule (15c3-5) requires firms to have risk management controls and supervisory procedures that prevent market access customers from entering orders exceeding appropriate, pre-set credit or capital thresholds.

Risk management controls cannot be designated or delegated to a third-party or outside vendor and the firm's CEO must certify the effectiveness of a firm's controls.

These controls and procedures, intended to limit the financial exposure that might arise as a result of market access, include:

- Preventing entry of orders exceeding appropriate pre-set credit or capital thresholds—for individual customers, for the broker-dealer, or in the aggregate
- Preventing entry of erroneous orders by rejecting orders that exceed appropriate parameters or that indicate duplicate orders. The parameters may be set on an order-by-order basis or over a specified period of time. These are known as **pre-trade controls**. If an automated system is involved in any aspect of executing orders, the broker-dealer's pre-trade controls must also be automated.

Example

An **order-by-order** control parameter looks at each trade to determine validity and identify potential duplication of orders.

A **time-period** parameter identifies a series of trades made over a certain period, such as the last four hours, and reviews inventory concentration in a particular issue.

With automated systems, trading moves too fast for a broker-dealer to implement manual controls. To be effective, pre-trade controls must be automated. Humans can make the final judgment to accept or reject a trade once it has been flagged by the automated system for exceeding parameters.

Knopman Note: A firm using automated trading systems must also use automated pre-trade controls.

In addition, pre-trade controls must prevent any order from entering the system that does not comply with all regulatory requirements and order restrictions.

Knopman Note: Firms should have pre-trade controls (a type of risk management control) in place to prevent "fat finger" errors—e.g., entering extra zeroes or duplicate orders. Pre-trade controls will screen orders prior to entry to prevent duplicates, unusual dollar amounts and size, and a price too far from the current market price.

Risk management controls and supervisory procedures must apply to **both trades and quotes**. Specifically, a broker-dealer's risk management controls should be designed to prevent an electronic quote system from accidentally entering excessive or erroneous quotes into the market as well as preventing trades outside the permissible levels.

The rule also requires risk management controls and supervisory procedures to be under the **direct and exclusive** control of the broker-dealer that provides market access. In other words, they cannot be delegated or outsourced to an affiliate. The broker-dealer must restrict market access technology and systems to authorized persons and ensure appropriate surveillance through **immediate** post-trade execution reports.

The rule is designed to prevent several types of rogue trading, as well as costly or risky trading errors. A broker-dealer cannot claim that its compliance or trade surveillance department was "out of the loop" in reviewing risk limits or unusual trading activity.

> ***Knopman Note:*** Financial risk management controls prevent the entry of erroneous orders.
>
> These are distinct from a firm's regulatory risk management (which deals with regulation compliance) and credit risk management (which deals with the extension of credit).

Unit Exam

1. Under the Regulation NMS Access Rule, for stocks quoted at $1 or more, trading centers may charge no more than:

   A. $0.001 per share.
   B. $0.003 per share.
   C. $0.005 per share.
   D. 0.3% of the quotation price.

2. The short sale circuit breaker is triggered by comparing the previous day's best closing bid with:

   A. the best current bid.
   B. the best current offer.
   C. the current reported transaction price.
   D. the midpoint or the average of the current NBBO.

3. An order to sell 100 shares of common XYZ stock must be marked short unless the customer:

   A. owns convertible preferred XYZ stock.
   B. owns an XYZ convertible bond.
   C. purchased XYZ shares yesterday but has not yet received the shares.
   D. owns an XYZ call option.

4. When executing a short sale, whose responsibility is it to obtain a locate?

   A. The investment advisory firm
   B. The executing firm
   C. The clearing firm
   D. The introducing firm

5. An investor owns 50 round lots of XYZ stock and has also sold 20 XYZ call options. The investor is:

   A. net long 30 shares.
   B. net long 50 shares.
   C. net long 3,000 shares.
   D. net long 5,000 shares.

6. If FINRA decides that a trade is clearly erroneous, what will it do?

   A. Adjust the trade
   B. Cancel the trade
   C. Require the trade to be reported with a different price
   D. Require arbitration between the counter-parties

7. On Friday, May 1st a customer enters an order to sell 100 shares ABC stock short. On what date must the firm close out the position if delivery has not already been made?

   A. Monday, May 4th by the open of trading
   B. Tuesday, May 5th by the open of trading
   C. Wednesday, May 6th by the open of trading
   D. Wednesday, May 6th by the close of trading

8. In order to qualify for independent unit aggregation:

   A. traders can only be assigned to one unit.
   B. traders from one unit cannot coordinate with traders in another unit.
   C. there must be a written plan to identify each unit.
   D. all the above criteria must be satisfied.

9. FINRA can halt trading in an OTC equity for an extraordinary event for up to:

   A. 5 business days.
   B. 10 business days.
   C. 20 business days.
   D. 90 calendar days.

10. A Nasdaq clearly erroneous options trade works to the detriment of the buyer. After notification, the parties can't work out an arrangement. What will Nasdaq do?

    A. Adjust the price up from the trade price
    B. Adjust the price down from the trade price
    C. Adjust the price up from theoretical value
    D. Adjust the price down from theoretical value

Unit Exam—Solutions

1. **(B)** Under the Regulation NMS Access Rule, for stocks quoted at $1 or more, trading centers may charge no more than $0.003 per share. For quotes below $1, the limit is 0.3% of the quotation price.

2. **(C)** The short sale circuit breaker kicks in if a covered security's transaction price declines by 10% from the previous day's closing best national bid. The transaction price is based on trades reported in the consolidated system during regular trading hours.

3. **(C)** Under Regulation SHO, an investor is deemed to own the stock if they have entered into a contract to purchase the security but have not yet received the shares (i.e., an unsettled purchase). Owning a convertible bond, convertible preferred stock, or a call option does not deem the investor to own the shares, unless they have tendered conversion instructions or exercised the option.

4. **(D)** When executing a short sale, it is the introducing (or receiving) broker-dealer's obligation to obtain a locate. The executing and clearing firms need not get a locate.

5. **(C)** The investor owns 5,000 shares (remember each round lot represents 100 shares). However, the short calls reduce the net long position by 2,000 shares (remember each call option represents 100 shares).

6. **(B)** Clearly erroneous trades, in accordance with FINRA's judgment, are cancelled.

7. **(C)** Close out of short sales is required prior to the open of trading on the business day after the settlement date. Since settlement is two business days after the trade date (Tuesday), the close out must occur by the open of trading on Wednesday.

8. **(D)** Independent unit aggregation allows each trading desk (i.e., unit) to determine its own position, if all of these requirements are met: 1) the broker-dealer must have a written plan to identify each unit, 2) each unit must determine its own net position for every security, 3) traders can only be assigned to one unit, and 4) traders from one unit cannot coordinate with traders in another unit.

9. **(B)** FINRA can halt trading in an OTC equity for an extraordinary event for up to 10 business days.

10. **(C)** Nasdaq starts with theoretical value and adjusts the price up for buys (i.e., obvious error works to the detriment of the buyer) and down for sells. Remember: Buy up, sell down.

4. Handling Customer Orders

Market makers are the link between parties in the capital markets. They accept, display, and execute customers' orders and simultaneously stand ready to buy and sell securities for their own accounts so that there is liquidity and transparency in the equity markets. In fulfilling these roles, however, market makers must follow specific rules and guidelines to treat customers fairly and with the highest standards of commercial honor.

This chapter will cover the following information:

- Types of orders
- Displaying and protecting customer limit orders
- Prohibited trading practices
- Adjustment of orders
- Trade settlement

4.1 FINRA's Conduct Rule

FINRA Rule 2110 is FINRA's Conduct Rule, one of the most important regulatory standards in the US securities industry. This rule embodies FINRA's Standards of Commercial Honor and Principles of Trade, and in just 22 words, it provides an overarching principle for all securities professionals:

"A member, in the conduct of its business, shall observe high standards of commercial honor and just and equitable principles of trade."

There are no universally agreed-upon definitions for terms such as "high standards" or "just and equitable." Therefore, the Conduct Rule is fundamentally subjective. This gives FINRA broad power to enforce the rule. The information in this chapter will discuss the various rules and regulations governing how FINRA firms can and must interact with their customers.

4.2 Types of Orders

Investors who enter orders with a firm can provide specific instructions that govern how their orders must be executed.

4.2.1 Market Orders

A **market order** is an order to buy or sell stock at the best available price. The intent of a market order is to have immediate execution at the current price, whatever that may be. Market orders are said to guarantee execution, but not guarantee price.

A market order indicates that the customer wants immediate execution. In order to do so, a customer desiring to sell would need to "accept" the best bid. Conversely, a customer desiring to buy would need to do so at the offer price, since this is the amount at which a seller is immediately willing to sell the stock.

Example

An investor enters an order to buy 100 shares of ABC stock at the market. When the order reaches the market, the NBBO is 75.47–.49. In this instance, the order will be executed at 75.49, since that is the lowest price at which someone is willing to sell the shares (the best offer).

Similarly, a market order to sell would be executed at the best bid, here $75.47, since that is the most an investor will currently pay. Put another way, for an investor who wants to sell the stock immediately, the best bid represents the most a customer can receive.

To use a term discussed earlier, market orders **cross the spread**, meaning they execute against the best price on the other side of the market.

This table summarizes how market orders are executed.

Type of Order	Execution Price
Market order to sell	Highest bid
Market order to buy	Lowest offer

Knopman Note: A client choosing to "hit the bid" is saying they want to place a market order to sell. Conversely, "lifting the offer" is a market order to buy.

In fast-moving markets, however, the price at which a market order will execute may deviate significantly from the last-traded price or **real-time quote**, and many exchanges restrict customers' ability to place true market orders—instead customers will use collared orders.

Example

The NBBO is 8.00–8.25. Customer A enters a limit order to buy at $8.25. Simultaneously, Customer B enters a market order to sell. Where does each customer get executed?

Customer A's limit buy order at $8.25 can be executed with Customer B's market order to sell, and both get filled at $8.25.

Notice that both customers get filled at the same $8.25 price.

4.2.2 Collared Orders

During normal market operations, Nasdaq converts customer market orders into collared orders. A **collared order** refers to any unpriced order entered into the system. To protect customers from extreme price volatility, the order (or any portion thereof) is cancelled if it would be executed more than $0.25 or 5% away from the inside market at the time the order reaches the system, whichever is greater.

Example

A customer enters an order to buy 5,000 shares when the inside market is 87.30–88.00. In this case, the 5% collar is calculated off the best offer of 88.00, equal to $4.40. By the time the order reaches the market, the best available price is $92.50. Because this is more than 5% away from the $88 best offer at the time of order entry, the order is cancelled. The collar is based off the 5% rather than $0.25 since 5% of the inside is greater than $0.25.

Example

A customer enters a market order to sell 3,000 shares when the inside market is 4.00–4.05. Here, the collar is $0.25 away from 4.00 ($3.75) because that is greater than 5% of 4.00 ($0.20). At the time of execution, the market is:

MM	Size	Bid
MMAA	20	3.80
MMBB	10	3.70
MMCC	8	3.65

The firm can sell 2,000 shares at $3.80 and the other 1,000 shares can be sold at $3.70. In this case, 2,000 would be executed at $3.80 but the remaining portion of the order must be cancelled because $3.70 is more than $0.25 away from the inside market at the time of order entry.

During a cross (open, closing, or halt), traditional market orders (i.e., without a collar) can be entered.

4.2.3 Limit Orders

A buy limit order specifies the maximum price at which an order can be filled, while a sell limit order specifies a minimum price that will be accepted.

Example

A customer enters an order to "buy 100 shares at $45.50 limit." The order will only be executed at $45.50 or below.

Knopman Note: If an investor places a limit order that specifies that they want a certain price, including the commission, the broker-dealer must place the order at a better price of its choosing so that the all-in price to the customer does not exceed the customer's specifications. For example, if a customer says, "I want to pay no more than $30, including the commission," the broker-dealer might choose to place the order at $29, thereby allowing room for a $1 commission. This must be clearly explained to the customer.

Limit orders will not be filled if the required price is not available. If the order is not filled during the trading day, it is automatically cancelled at the close of trading unless the customer has specified a time in force (discussed shortly).

A **marketable limit order** is one that can be filled immediately upon order entry given the current market price.

Example

A customer enters an order to buy 300 shares at $75.81 when the best offer is $74.90 for 10 round lots. Since the customer is willing to pay up to $75.81 and the shares are available at a cheaper price ($0.91 cheaper), the order can be executed immediately at $74.90 and can be described as a marketable limit order.

If the limit order is not marketable when entered, that quote will generally be displayed by the market maker as a quote available for execution. Rules regarding limit order display will be discussed shortly.

Example

A customer enters an order to buy 300 shares at $75.81 with MMAA when the best offer is $75.88 for 10 round lots. Because this order is not marketable, the market maker will enter the customer's limit order for display on the system.

Knopman Note: When a firm is holding multiple customer limit orders, the priority in which they will be filled is 1) price, 2) time of entry, and 3) order size (largest order first).

Also, if a customer places a limit order that is marketable at the time of order entry but is not marketable by the time the order reaches the market, the broker-dealer would continue to hold the order as a traditional "resting" limit order.

Example

A customer enters an order to buy 100 at $82 when the market is 81 × 82. By the time the order reaches the market, the inside market has moved to 82 × 83. In this case, the broker-dealer should continue to represent the customer's limit order to buy at 82.

4.2.4 Stop Orders

A **stop order** is a specific order instruction that allows an investor to control when the order will be executed. Stop orders are two-step orders:

- **Step 1**: The stock trades at or through a designated stop price.
- **Step 2**: The order is activated, elected, or triggered and becomes a market order. As a market order, it will immediately execute at the best available price (the best bid for sell stop orders; the best offer for buy stop orders).

Knopman Note: A stop order entered good 'til cancelled (GTC) can be activated by the opening price the next day and then subsequently executed.

4.2.5 Buy Stop Orders

A buy stop order is entered at a stop price above the market price. It can be used to protect a profit or limit a loss on a short stock position.

Example

A customer enters an order to "buy 400 shares XYZ at $32.50 STOP." Once XYZ trades at or above $32.50, the stop order will activate. Once activated, the order (now a market order) will execute at the best offer. Here, assume at the moment after activation the quote is 32.49–32.57. Therefore, the shares will be purchased at $32.57.

Buy stop orders are commonly placed to protect a short position. For example, an investor who sells stock short at $60 might place a buy stop at $80 to cover the short if the stock moves in the wrong direction.

Example

An investor sold short 1,000 shares of ABC stock at \$37. Now, the current share price is \$34, providing the investor with an unrealized profit of \$3 per share. To avoid a loss, which will occur if the price rises higher than \$37 per share, the investor enters instructions to "buy 1,000 shares of ABC, stop at \$36.50." If ABC trades at \$36.50 or above, the order will trigger into a market order, and the shares will be bought at the next available price (i.e., the lowest offer).

4.2.6 Sell Stop Orders

Similarly, a stop order to sell becomes a market order when a transaction occurs at or below the stop price. A sell stop can be used to protect a long position in a declining market.

Example

An investor owns 100 shares of PSL at \$92 and is going on an extended vacation. If the price falls as low as \$85, she wants out of the stock. She can enter an order to "sell 100 shares of PSL, stop \$85," and if PSL drops to \$85, the stop order will convert into a market sell order and automatically liquidate her position at the next available price.

4.2.7 Stop Limit Orders

A **stop limit order** combines a stop price (to trigger the order) with a limit price at which the transaction must be executed. Put differently, once activated, the order converts into a limit order rather than a market order.

Example

An investor enters an order to "buy 400 shares stop at \$32.50, limit at \$32.75." Any transaction at or above \$32.50 will trigger into a limit order to buy 400 shares at \$32.75. In this case, the investor is assured of buying the shares at a price no higher than \$32.75.

One risk associated with stop limit orders is that the order can trigger but not execute—this is referred to as an order being **activated, but not executed**. To continue with the example above, if the order was activated by a trade at \$32.71 but the shares were never subsequently available at \$32.75 or below, the limit price could not be satisfied and the order would not be executed.

Example

An investor enters an order to "buy 800 shares stop at \$12.52, limit at \$12.60." The stock then trades: \$12.40, \$12.49, \$12.55 (activation), \$12.62. Notice the order is activated at \$12.55, but the stock is never available for purchase at \$12.60 or less. Therefore, this order would activate but not execute.

4.2.7.1 Entry of Limit and Stop Orders

When entering limit and stop orders, customers must follow certain guidelines relating to whether the stop price must be above or below the current market value.

Below the Market	Above the Market
Buy limit	Sell limit
Sell stop	Buy stop
Sell stop limit	Buy stop limit

Stop orders that do not follow the above guidelines would immediately activate, which is why they cannot be entered as such.

4.2.8 Discretionary Orders

Example

A customer places an order to buy 1,000 shares at $74.83 with a discretionary range of $0.06. The system displays a bid of $74.83, but the buyer is actually willing to pay up to $74.89.

The order will only execute in the discretionary range **if necessary**, meaning a priced order on the other side of the market is displayed or an execution takes place within the discretionary range. If one of those two events occurs, the discretionary order becomes an **immediate-or-cancel order** (IOC; discussed shortly) at the highest price (or lowest price for a sell order) of the discretionary range.

Example

A customer places an order to sell 300 shares at $12.34, with a discretionary range of $0.03, meaning the customer will sell for as low as $12.31. If a displayed bid comes in at $12.32, the discretionary order becomes an IOC order to sell at $12.31 and could be executed against the $12.32 bid.

In the case that more than one discretionary order becomes an IOC order, priority is given to the first order that reaches the interest on the other side of the market. If the discretionary order becomes an IOC order but is not executed, the unexecuted portion reverts to a discretionary order with a new time stamp.

The discretionary range is not relevant when trades are executed against market orders. It might be helpful to think of the apartment example again here: For a purchaser bidding $200,000 but willing to pay $220,000, if the seller accepts the $200,000 bid, the buyer won't say, "By the way, I'm willing to pay $220,000."

Example

If the customer had placed the same order to sell 300 shares at $12.34 with a discretionary range of $0.03, and a market order to buy 300 shares was presented, the orders would execute against each other at the displayed price of $12.34.

4.2.9 Pegged Orders

Customers may wish to enter orders that move up and down as the price of the stock changes. Pegged orders allow them to automate this process. A **pegged order** will adjust up or down based on the best bid, the best offer, or the bid–ask midpoint. These customer pegged orders are distinct from the market maker peg used by member firms to meet their quotation requirements.

A **primary peg** order will match the same side of the market, meaning a primary peg to buy will equal the inside bid. Conversely, a primary peg to sell will equal the inside offer. Primary peg orders are displayed.

A **market peg** order will match the opposite side of the market, meaning a market peg to buy will equal the inside offer, and a market peg to sell will equal the inside bid. Market peg orders are so called because they are immediately marketable, provided enough available interest exists on the other side of the market. Market peg orders are displayed.

A **midpoint peg** order, which will always be undisplayed, will equal the midpoint of the best bid and offer. Midpoint peg orders can execute in sub-penny increments to obtain the midpoint price.

Example

The inside market for ABC stock is 75.20–.25. A midpoint peg buy order would be an undisplayed bid that would execute at 75.225, the exact midpoint of the bid and ask, provided that there is interest on the other side of the market to facilitate the trade (e.g., the midpoint peg bid is $75.225—if a sell limit order was entered at $72.21, the order would execute at $72.225).

Pegged orders can be set with a limit price beyond which the order will not be adjusted.

Example

An investor enters a primary peg to sell 100 shares with a limit price of $55.10 at a time when the best offer is $55.25. At order entry, the order will automatically be priced at the best offer of $55.25. The best offer subsequently moves down to $55.15, causing the pegged order to reset to $55.15. Then, the best offer moves again, to $55.05. In this case, the pegged order will go down to $55.10, but not lower, since that is the limit price.

Primary and midpoint peg orders can also include offset amounts that will keep the order price a certain interval away from the pegged price.

Example

An investor places a midpoint peg to buy 400 shares with an offset of $0.02 at a time when the inside market is 10.52–.58. At order entry, the pegged order will be priced at $10.57, $0.02 above the bid–ask midpoint of $10.55. The inside market subsequently moves to 10.52–.60. Therefore, the midpoint peg will move to $10.58, $0.02 above the new midpoint of $10.56.

Pegged orders will generally be displayed on the Nasdaq system, with two exceptions:

- Midpoint peg orders are not displayed, and
- Primary peg orders with an offset amount are not displayed

Knopman Note: There are three types of pegged orders: primary peg, market peg, and midpoint peg. Any order with a limit price is not necessarily a pegged order. A pegged order is a special type of limit order that automatically adjusts as the market moves.

4.2.10 Minimum Quantity Orders

A **minimum quantity order** (sometimes abbreviated MAQ for minimum acceptable quantity) is an order where the customer specifies a minimum number of acceptable shares for execution. The order will not execute unless the customer can get at least that many shares.

Example

A customer enters an order to buy 1,000 shares of ABC at $32.45 MAQ 300. Subsequently, 200 shares become available at $32.45. In this case, the order will not be executed because the customer requires at least 300 shares.

If the number of shares remaining after an execution is less than the MAQ specified in the order, the MAQ is reduced to the number of shares remaining.

Example

A customer enters an order to buy 1,000 shares of ABC at $32.45 MAQ 300. Subsequently, 800 shares become available at $32.45. Since the 800 shares are acceptable to the customer, the trade will be executed, thereby leaving 200 shares unexecuted. The order's MAQ will be adjusted downward from 300 shares to 200 shares.

MAQ orders can also be entered to permit multiple simultaneous executions to meet the minimum quantity. MAQ orders are non-displayed orders in Nasdaq.

4.2.11 Other Order Types

In recent years, brokerage firms have competed for institutional volume by offering alternative order types, including a version of stop and stop limit orders that are not triggered by execution prices but instead by quotes or other criteria. This caused confusion and errors when these stop-like orders were entered and routed to firms that did not use or understand the newer order types. These types of orders can also confuse clients, who may think they are traditional stop orders.

FINRA Rule 5350 aims to clarify the situation. The rule applies to NMS and OTC equity securities. The rule:

- Requires that any orders labeled either **stop** or **stop limit** be triggered based on actual executions. They cannot be triggered by any other market event (quotes, averages, etc.).
- Permits brokerage firms to offer alternative order types with different triggers, provided that the order is not labeled **stop** or **stop limit** and is clearly distinguishable. For example, a firm could call an order triggered by a quote a "stop-quote" order.
- Requires written disclosure to customers, prior to order execution, that provides a clear description of the alternative order type and triggering events
- Clarifies that member firms are not obligated to accept stop, stop limit, or other types of triggered orders

Firms that do route stop or stop limit orders to other broker-dealers or exchanges must take reasonable steps to ensure that the orders are handled properly and in accordance with the order parameters.

4.2.12 Time in Force

Time in force describes when the system will make an order available for execution. If a customer does not specify a specific time in force, the order will be treated as a **day order**. Orders can be defined as **market hours day orders** or **system hours day orders**. Market hours are 9:30 am–4:00 pm. System hours are 4:00 am–8:00 pm.

> ***Knopman Note:*** Nasdaq system hours are 4:00 am to 8:00 pm.

4.2.12.1 Market Hours Day (MDAY)

A market hours day (MDAY) order is the default order type. An MDAY order is executable between 9:30 am and 4:00 pm on the day the order is entered. Any portion not executed by 4:00 pm is cancelled.

4.2.12.2 Market Hours Good 'Til Cancelled (GTC)

A **good 'til cancelled (GTC) order** is available for execution during market hours for one full year from the date of order entry, unless it is executed or cancelled by the customer.

> ***Knopman Note:*** A good 'til cancelled (GTC) order is an order to buy or sell a stock that remains on the limit order book ("the book") until the order is executed or cancelled.

4.2.12.3 Market Hours Immediate-or-Cancel (IOC or MIOC)

An **immediate-or-cancel (IOC)** or a **market hours immediate-or-cancel (MIOC) order** must be filled immediately after order entry. Any portion of the order (including potentially the entire order) that cannot be immediately satisfied is cancelled. IOC and MIOC orders do allow for partial executions. The order can only be entered and executed during normal market hours.

Example

Joe enters an order to buy 3,000 shares at $75 IOC. At the time of order entry, 2,000 shares are available at $75. Joe will purchase 2,000 shares, and the firm will cancel the rest of the order since only 2,000 shares were available immediately.

4.2.12.4 System Hours Day (SDAY)

System hours day (SDAY) orders are available for execution from 4:00 am–8:00 pm on the day the order is entered.

4.2.12.5 System Hours Good 'Til Cancelled

System hours GTC orders are available for execution from 4:00 am–8:00 pm every day for one year, or until the order is cancelled.

4.2.12.6 System Hours Immediate-or-Cancel (SIOC)

System hours immediate-or-cancel (SIOC) orders can be executed anytime from 4:00 am–8:00 pm but will be cancelled unless at least a portion of the order is marketable upon order entry. Any portion that is not immediately marketable will be cancelled.

4.2.12.7 Good 'Til Market Close (GTMC)

Good 'til market close (GTMC) orders are available for execution until 4:00 pm, ET. If the order is not executed on the continuous book during the day, it will participate in the closing cross, after which any unexecuted portion will be cancelled. If a GTMC order is entered after the closing cross, it will be treated as a system hours IOC order.

4.2.12.8 System Hours Expire Time (SHEX)

System hours expire time (SHEX) orders allow the customer to specify the exact time in force. For example, the customer could state "good for an hour," "good for a week," or "good for a month." Orders are available for entry and execution anytime the system is open (4:00 am–8:00 pm).

4.3 Paperwork for Customer Orders

Having reviewed the various order types available to customers, the next step is to understand how these orders are communicated to and captured by the firm. This section will discuss order tickets (pre-execution) and trade confirmations (post-execution).

4.3.1 Order Tickets

Upon receiving an order from a customer, a firm must complete an **order ticket (i.e., order memorandum)**, which includes the following key terms of the order:

- Stock name
- Price instructions (if any)
- Whether it is a buy or sell order
- Number of shares
- Order instructions (market, limit, stop, etc.)
- Customer account number
- Time of order receipt, entry, and execution
- Identity of the registered rep(s) responsible for the account
- Identity of the person who entered and accepted the order from the customer, or a notation that it was entered electronically
- Execution price
- Notation if the order was executed on a discretionary basis
- Notation if the order was executed on an unsolicited basis

Knopman Note: Key things to know about order tickets:

An order ticket must specifically note whether an order was entered as a discretionary or an unsolicited order. It is a violation to inappropriately mark a solicited trade as unsolicited or discretionary. Here is a summary of the ways that orders can be received:

- Unsolicited—The client initiates the trade on his own.
- Solicited—The securities professional suggests or recommends the transaction, and the client approves it.
- Discretionary—The securities professional is authorized to place trades on the client's behalf.

The time of entry is defined as the time when the firm transmits the order or instruction for execution.

CUSIP numbers are not required on the order ticket.

4.3.2 Trade Confirmations

Broker-dealers are required to provide written confirmations of trades to customers at or before completion of a transaction, which is defined as **settlement**.

Under SEC Rule 10b-10, required information on the customer **trade confirmation** includes:

- Broker-dealer's name and address
- Whether the trade was a purchase or a sale
- Price
- Complete description of the security, including name and CUSIP (a security's unique identification number)
- Number of shares
- Trade settlement date
- Time of the trade or a statement that the time is available upon request
- Delivery and payment instructions
- Capacity of the broker-dealer (agent or principal)
  - If acting as principal, whether the firm is a market maker in the security
  - If acting as principal and executing on a net basis or riskless principal basis, the difference between the price to the customer and the price to the broker-dealer for the offsetting leg
  - If acting as principal, the difference between the price to the customer and the reported transaction price (i.e., the mark-up or mark-down)
  - If acting as agent, the commission
  - If acting as agent, any other remuneration received in connection with the transaction (e.g., payment for order flow)
- Market where the trade was effected
- Any control relationships between the issuer of the securities and the firm
- Whether an odd-lot fee was assessed and disclosure that the amount of the fee will be disclosed upon request

Knopman Note:

Q: Is the time of execution required on an order confirmation?

A: The order ticket must include the time of execution, whereas the trade confirmation may, but is not required to.

Q: What is not required on a trade confirmation?

A: Order receipt time is not required on a trade confirmation.

Q: How detailed is the order flow disclosure on the order confirmation?

A: Trade confirms must indicate whether the broker-dealer received payment for order flow for the transaction. The specific source and nature of the payment for order flow are furnished only upon the customer's written request.

If the customer does request any information offered on a trade confirmation (e.g., transaction time, amount of odd-lot fee), the broker-dealer has five business days to provide this information. If the transaction occurred more than 30 days prior to the request, the broker-dealer has 15 business days to provide the data.

4.3.2.1 Alternative Periodic Reporting

Broker-dealers may execute transactions for a client without providing a transaction-specific trade confirmation in certain limited circumstances:

- The client trades are executed pursuant to a periodic plan, such that transactions occur at previously agreed to intervals and quantities, or
- The transactions are for money market fund clients

4.3.2.2 Delivery of Quarterly Statements

Clients who trade under a periodic plan and do not receive confirmations for each transaction must receive a written statement of transactions on a quarterly basis. The **quarterly statement** must be delivered within five days of quarter end.

Money market fund clients must receive this statement after the end of each month.

The written statement can be delivered either to the customer or to another person chosen by the customer. The written statement must include the following information for the period:

- Securities transactions along with the date, ticker, price, and quantity
- Dividends and distributions
- Total number of shares of each security that was traded
- Remuneration paid to the broker-dealer
- A notice that all information provided on traditional trade confirmations is available upon request

4.4 Display of Customer Limit Orders

With the goal of transparency and fairness across marketplaces, member firms have an obligation to display both their own quotes and the priced limit orders (i.e., priced orders) of their customers for both listed securities (NMS stock) and OTC equities. The **Limit Order Display Rule**, codified as Regulation NMS Rule 604, applies to NMS stocks while FINRA Rule 6460 applies to OTC equities. Both rules require market makers to display quotes, including the price and size, to the entire marketplace, subject to certain exceptions. The general rules for limit order display are as follows:

- If a customer's order improves the market maker's price, the firm must update its quote to reflect the order.
- If a customer's order is at the inside market (best bid or best offer), the firm must adjust its displayed size to include the firm's size plus the customer's size. Note that for OTC stocks, the inside market is based upon the best bid or best offer on that particular venue, whereas for NMS stocks, it is the NBBO. An exception is available, however, if the customer's size represents a de minimis change in the market maker's size, in which case the firm's size need not be adjusted. A **de minimis** change for these purposes is defined as no more than 10% of the market maker's displayed quote size.

Additional exceptions allow a firm to not display a customer's order at all. The display rule does not apply to any customer limit order that:

- Is executed on receipt (marketable)
- The customer requests not to be displayed
- Is an odd-lot order (generally less than 100 shares)
- Is a block size order (greater than 10,000 shares or $200,000), unless a customer placing the order requests that the order be displayed (Note: For OTC equities, a block is defined as 10,000 shares and at least $100,000 in value.)

> ***Example***
>
> An order of 10,000 shares at $10 per share (total value of $100,000) would constitute a block order in the OTC markets.

> ***Knopman Note:*** When executing a block trade (e.g., an order to buy 15,000 shares) a market maker can display or show an indication of less than the full 15,000 shares. For example, showing a quote or indication of 10,000 shares would be permissible.

- Is delivered immediately upon receipt to a national securities exchange, a national securities association-sponsored system, or an electronic communications network

- Is delivered immediately upon receipt to another exchange member or to an OTC market maker that complies with these requirements
- Is an all-or-none order

> ***Knopman Note:*** Make sure to review the exceptions to limit order display detailed above.

Absent an exception, a market maker must update its quote within 30 seconds to reflect a customer's order.

> ***Knopman Note:*** On the exam, unless an exception is presented within a question, always assume that a market maker is required to display a customer's limit order.

The rest of this section details examples of the Limit Order Display Rule. All examples assume the following market for ABCC stock:

Market Maker	Bid	Display Size	Display Size	Ask	Market Maker
MMAA	10.42	22	27	10.44	MMBB
MMBB	10.42	26	24	10.44	NSDQ
NSDQ	10.42	35	17	10.45	MMAA
MMAA	10.41	18	32	10.45	MMBB
NSDQ	10.41	33	37	10.46	MMCC
MMBB	10.40	41	35	10.46	MMBB
MMCC	10.40	38	28	10.47	MMAA

4.4.1 Orders Improving a Market Maker's Quote

Given the market above, a customer subsequently contacts Market Maker A (MMAA) and places an order to buy 3,000 shares of ABCC at 10.43. MMAA is currently bidding 10.42. Since this order improves the market maker's quote, from .42 to .43, the market maker must update its quote to reflect the full price and size of the customer's order. Therefore, MMAA is now alone at the best bid, and the market for ABCC is reflected as:

Market Maker	Bid	Display Size	Display Size	Ask	Market Maker
MMAA	10.43	30	27	10.44	MMBB
MMAA	10.42	22	24	10.44	NSDQ
MMBB	10.42	26	17	10.45	MMAA
NSDQ	10.42	35	32	10.45	MMBB
MMAA	10.41	18	37	10.46	MMCC
NSDQ	10.41	33	35	10.46	MMBB
MMBB	10.40	41	28	10.47	MMAA

The new quote is outlined for emphasis. The 10.43 bid reflects the customer's interest in purchasing the stock at that price. Put another way, the market maker is bidding, as agent, on behalf of the customer.

Note that MMAA's previous high bid at 10.42 remains available for execution but is no longer the best bid. Also, the new bid has impacted the inside market, which is now 10.43–.44 30 × 51.

If a customer had placed an order to sell stock at a specific price, the order would have updated the ask side rather than the bid side.

4.4.2 Orders Impacting a Market Maker's Size

Again, assume the initial market is:

Market Maker	Bid	Display Size	Display Size	Ask	Market Maker
MMAA	10.42	22	27	10.44	MMBB
MMBB	10.42	26	24	10.44	NSDQ
NSDQ	10.42	35	17	10.45	MMAA
MMAA	10.41	18	32	10.45	MMBB
NSDQ	10.41	33	37	10.46	MMCC
MMBB	10.40	41	35	10.46	MMBB
MMCC	10.40	38	28	10.47	MMAA

A customer places an order with MMAA to buy 3,000 shares at 10.42. The market maker is already bidding on shares at that price. So, MMAA will add the size of the customer's order to its own existing bid size of 2,200 shares. The resulting market is as follows, with the updated quote outlined and the new quote size bolded:

Market Maker	Bid	Display Size	Display Size	Ask	Market Maker
MMAA	10.42	**52**	27	10.44	MMBB
MMBB	10.42	26	24	10.44	NSDQ
NSDQ	10.42	35	17	10.45	MMAA
MMAA	10.41	18	32	10.45	MMBB
NSDQ	10.41	33	37	10.46	MMCC
MMBB	10.40	41	35	10.46	MMBB
MMCC	10.40	38	28	10.47	MMAA

4.4.3 Orders Impacting Size Not at the Inside Market

Back to the initial market:

Market Maker	Bid	Display Size	Display Size	Ask	Market Maker
MMAA	10.42	22	27	10.44	MMBB
MMBB	10.42	26	24	10.44	NSDQ
NSDQ	10.42	35	17	10.45	MMAA
MMAA	10.41	18	32	10.45	MMBB
NSDQ	10.41	33	37	10.46	MMCC
MMBB	10.40	41	35	10.46	MMBB
MMCC	10.40	38	28	10.47	MMAA

MMAA receives an order from a customer to sell 1,500 shares of ABCC stock at 10.45. MMAA is currently showing an offer of 10.45. Therefore, this quote does not improve MMAA's price; rather, it only impacts its size. Since the price of 10.45 is not at the inside offer of 10.44, the market maker does not need to update its quote to reflect this order.

Note that if the .44 offer is executed, and the .45 offer becomes the new best offer, MMAA is required to immediately update its offer to reflect the customer's order. Put another way, if an existing quote *becomes* the inside market, all sizes at that price must be displayed.

> ***Knopman Note:*** An order that only impacts the market maker's size must only be reflected in a quote if that price is at the inside market.

4.4.4 Orders for a De Minimis Size

The previous example illustrates that orders that impact a market maker's size must only be reflected in a quote that is at the inside market. An exception is available for orders that are no more than a **de minimis size** in relation to the market maker's quote size. De minimis size is defined as 10% or less of the market maker's displayed order size.

Take the same market as an example:

Market Maker	Bid	Display Size	Display Size	Ask	Market Maker
MMAA	10.42	22	27	10.44	MMBB
MMBB	10.42	26	24	10.44	NSDQ
NSDQ	10.42	35	17	10.45	MMAA
MMAA	10.41	18	32	10.45	MMBB
NSDQ	10.41	33	37	10.46	MMCC
MMBB	10.40	41	35	10.46	MMBB
MMCC	10.40	38	28	10.47	MMAA

A customer contacts MMAA and places an order to buy 200 shares at 10.42. 10.42 is at the inside market, which normally requires the full size to be reflected in the quote. However, as this order is for less than 220 shares (i.e., 10% of the current displayed size for MMAA at 10.42), MMAA can choose not to display the order.

For purposes of the de minimis exemption, a market maker is required to aggregate all customer orders that are less than 10% of the current quote size. Once those orders, in aggregate, equal or exceed 10% of the current quote size, the market maker must update its quote to reflect the orders.

Example

In the market above, MMAA is bidding 10.42 on 2,200 shares (22 round lots). MMAA is not required to display an order received for 200 shares at 10.42, since this is de minimis. However, if MMAA were to subsequently receive another order to buy 100 shares at 10.42, it would be required to update its size to reflect both orders, since the total of three round lots reflected by these two orders is no longer de minimis.

4.4.5 Marketable Orders

Again, back to the same market:

Market Maker	Bid	Display Size	Display Size	Ask	Market Maker
MMAA	10.42	22	27	10.44	MMBB
MMBB	10.42	26	24	10.44	NSDQ
NSDQ	10.42	35	17	10.45	MMAA
MMAA	10.41	18	32	10.45	MMBB
NSDQ	10.41	33	37	10.46	MMCC
MMBB	10.40	41	35	10.46	MMBB
MMCC	10.40	38	28	10.47	MMAA

A customer contacts MMAA to buy 1,300 shares of ABCC stock at 10.44. A quick review of the offer side of the market indicates that this is a **marketable limit order**, meaning there is a counterparty willing to accept the customer's bid price. MMBB is at the best offer of 10.44 and has time priority, as indicated by its position at the top of the screen. Therefore, it will execute the order for the 1,300 shares the customer is interested in purchasing and will **decrement**, or reduce, its offer size from 2,700 to 1,400, as indicated here:

Market Maker	Bid	Display Size	Display Size	Ask	Market Maker
MMAA	10.42	22	**14**	10.44	MMBB
MMBB	10.42	26	24	10.44	NSDQ
NSDQ	10.42	35	17	10.45	MMAA
MMAA	10.41	18	32	10.45	MMBB
NSDQ	10.41	33	37	10.46	MMCC
MMBB	10.40	41	35	10.46	MMBB
MMCC	10.40	38	28	10.47	MMAA

4.5 Trading Ahead of Customer Limit Orders (Manning Rule)

FINRA Rule 5320, often referred to as the **Manning Rule**, prohibits a FINRA member firm from placing the firm's trading interest ahead of a client's in both NMS stocks and OTC equity securities. The Manning Rule is also referred as the **Limit Order Protection Rule**.

The rule goes beyond limit order display. It requires that a firm not only display a customer's order, but also *execute* the customer's order in a particular manner.

Specifically, Manning prohibits a member from trading for its own account at a price that is equal to or better than an unexecuted customer limit order in that security, unless the member immediately thereafter executes the customer limit order at the same or better price for at least the same number of shares. For the purposes of Manning (FINRA Rule 5320), **immediately** is interpreted as within 60 seconds.

Example

Broker-Dealer ABC is holding a customer's order to buy 5,000 shares of XYZ stock at $37. If Broker-Dealer ABC purchases 2,000 shares of ABC for its own inventory at $37, it must immediately thereafter (within 60 seconds) fill the customer's order for 2,000 shares at $37 or better. The effect of these two transactions is that the customer gets the 2,000 available shares.

If the firm executes an order at a price superior to the customer's price, it must give the customer at least that price.

Example

Broker-Dealer ABC is holding a customer's order to buy 5,000 shares of XYZ stock at $37. If ABC purchases 2,000 shares of XYZ for its own inventory at $36, it must immediately thereafter fill the customer's order for 2,000 shares at $36. A customer bidding $37 would certainly accept a price of $36. Therefore, the customer must be filled at that price.

If, however, the broker-dealer trades for its own account at a price that is inferior to the customer's price, it is not required to fill the customer order.

Example

Broker-Dealer ABC is holding a customer's order to buy 5,000 shares of XYZ stock at $37. If ABC purchases 2,000 shares of XYZ for its own inventory at $38, it does not need to fill the customer's order. A customer bidding $37 would not be willing to pay $38. Therefore, there is no Manning obligation to the customer.

Customer limit orders must be protected during normal market hours of 9:30 am–4:00 pm. If a customer has been granted authority to trade outside normal market hours, the customer's orders must be protected at all times that the trade could be executed.

4.5.1 Exceptions to the Manning Rule

FINRA Rule 5320 offers a number of exceptions to the trading-ahead rule.

4.5.1.1 Trading Along

FINRA Rule 5320 lets firms execute orders for their own accounts without triggering a Manning obligation if certain requirements are satisfied. When these requirements are met, a firm is said to be **trading along** with the customer's order.

Trading along is only permitted for institutional accounts or for **large orders**, defined as at least 10,000 shares and $100,000 in value (note: the large order definition is slightly different than the block order definition of $200,000). Also, in order to trade along, the broker-dealer must disclose to the customer at account opening, and annually thereafter, that it may make proprietary trades at prices that would satisfy a customer's order but will not in fact execute the client's order. Furthermore, the firm must give clients an opportunity to opt in to the Limit Order Protection Rule on an order-by-order basis.

Even if the broker-dealer does not provide the disclosures at account opening and annually thereafter, it can *still* trade along, provided it makes clear verbal disclosure and receives written consent on an order-by-order basis.

Example

CST Pension Fund places an order to buy 15,000 shares of ABC stock at $75 with BD XYZ. XYZ notifies all institutional clients at account opening and annually that it may trade along with their orders. Therefore, XYZ could purchase shares of ABC at $75 for its own account without filling the order for the pension fund.

Example

Broker-Dealer DEF notifies all of its clients that it may trade along with their orders. Notifications are provided both at account opening and annually. Joe, a retail client, places an order to buy 5,000 shares of XYZ for $18. DEF subsequently purchases 4,000 shares of XYZ at $18 without executing any of Joe's order.

This is a violation. Even though the firm made appropriate disclosures, trading along is only permitted in institutional accounts or for large orders. Joe is not running an institutional account and his order does not meet the large-order threshold, so the firm cannot trade along Joe's orders.

4.5.1.2 No Knowledge

A firm that implements effective internal controls, such that the proprietary trading desk has **no knowledge** of customer orders, may execute trades for its own account without triggering a Manning obligation.

4.5.1.3 Riskless Principal Trades

A proprietary trade executed by a firm that is one leg of a riskless principal trade is not subject to this rule, provided that the trade is properly reported as a **riskless principal** transaction.

> ***Knopman Note:*** If a firm trades for its own account to execute a customer's order as a riskless principal trade, this does not trigger a Manning obligation. This is sometimes referred to as executing a facilitated order.

4.5.1.4 Intermarket Sweep Orders (ISOs)

When a customer enters an intermarket sweep order, as earlier discussed, the customer is effectively consenting to receiving a price that may be inferior to the other orders a broker-dealer executes to facilitate the ISO. Therefore, a Manning obligation does not apply—but only if the firm has a supervisory system in place that can reconstruct time-sequenced order activities.

4.5.1.5 Odd-Lot and Error Transactions

Trades executed solely to offset a customer's odd-lot order or to correct a bona fide error are not subject to the Manning Rule.

Knopman Note: A broker-dealer can trade ahead of a customer limit order if the:

1. Market maker has a better price than the customer (e.g., customer bid is 9.00; market maker bid is 9.01; i.e., market maker is willing to pay more), or
2. Trades are for institutional accounts or large orders (trades of 10,000 shares or more and > $100,000), with disclosure, or
3. No-knowledge exception applies (i.e., the firm's proprietary traders are not aware of the firm's customers' limit orders)

4.5.2 Minimum Price Improvement

Along with prohibiting firms from trading ahead of their customers' orders, FINRA Rule 5320 defines the minimum level of price improvement a member must provide to avoid triggering a violation. **Price improvement** refers to the minimum incremental difference from a customer's order at which a broker-dealer can trade without triggering a Manning obligation.

The price improvement levels are summarized as follows:

Order Price	Minimum Price Improvement
$1+ (NMS stocks)	$0.01
$1+ (OTC equities)	Lesser of $0.01 or ½ of inside spread
$0.01–$1	Lesser of $0.01 or ½ of inside spread
$0.001–$0.01	Lesser of $0.001 or ½ of inside spread
$0.0001–$0.001	Lesser of $0.0001 or ½ of inside spread
$0.00001–$0.0001	Lesser of $0.00001 or ½ of inside spread
< $0.00001	Lesser of $0.000001 or ½ of inside spread

Example

Jim enters an order to buy 5,000 shares of AAPL common stock at $120.35. The market maker could purchase AAPL at $120.36 or higher, to avoid triggering a Manning obligation.

Example

Jane enters an order to buy 500 shares of XYYZZ common stock, an OTC equity security, when the inside market is 0.00345–0.00485. Half the spread is $0.0007, which is less than $0.001. Therefore, the market maker must pay at least $0.00415 (inside bid + $0.0007) for its own account in order to avoid a Manning obligation.

Knopman Note: For NMS stocks trading for $1 or more, the minimum price improvement is one penny. For example, the smallest price improvement available to a bid of $12.30 is one cent, making the bid $12.31. A bid of $12.305 is not permissible. The smallest price improvement available for an offer of $12.35 is $12.34 (down one cent); a quote of $12.345 is not permitted.

4.6 Net Transactions with Customers

A **net transaction**, also called a **net basis trade**, is a principal trade in which there is virtually no risk to the dealer. The term is defined by FINRA Rule 2124 as "a transaction in which a market maker, after having received an order to buy an equity security, purchases the equity security at one price from a broker-dealer or another customer and then sells to the customer at a different price." The trade can also be done in the opposite fashion, where the broker-dealer receives an order to sell and then sells the stock in the open market at a higher price, then momentarily buys the shares from the customer.

As an example, an institutional trader might instruct its broker-dealer: "Get me 1,000 shares of ABC Company stock at $57 per share." The broker-dealer will scour the market and locate a seller willing to supply 1,000 shares at $57 or less. If the best price available is $55, the trader can, within seconds, buy them at $55 and sell those same shares to the customer at $57, earning a quick and almost riskless $2 per share. This is considered a net transaction. A net trade is similar to a riskless principal trade, except that in a net trade the first and second legs of the transaction are executed at different prices.

Net transactions are not unethical or illegal. However, before executing these transactions, members must provide appropriate notification to customers. The approval requirements are different for institutional and retail clients. Members must retain all documentation relating to consents for three years.

Again, the difference between a riskless principal trade and a net trade is that both legs of a riskless principal trade are done at the same price, whereas the two legs of a net trade are at different prices.

Example

Riskless Principal Trade:

1. BD A receives a customer order to buy 100 shares of XYZ.
2. BD A buys 100 shares of XYZ at $50 per share.
3. BD A sells 100 shares of XYZ to the customer at $50 per share plus a commission.

Note: BD A bought and sold the XYZ shares at the same price ($50) plus a commission.

Net Trade:

1. BD N receives a customer order to buy 100 shares of XYZ.
2. BD N buys 100 shares of XYZ at $50 per share.
3. BD N sells 100 shares of XYZ to the customer at $51, net (inclusive of the mark-up).

Note: BD N bought ($50) the XYZ shares and then sold ($51) them at a higher price (including a built-in fee).

4.6.1 Institutional Customer Authorization for Net Trades

Institutional customers include banks, savings and loans, insurance companies, registered investment companies, investment advisers, and other customers with total assets of at least $50 million. Institutional customers must consent to net transactions prior to their execution. The consent must evidence the customer's understanding of the terms and conditions of these types of orders.

For institutional clients, the consent can be obtained in three ways:

- **Negative consent letter**—The letter provides all required disclosures and gives the broker-dealer authority to execute the customer's orders on a net basis unless the customer objects. The letter must provide a meaningful way for the client to object to each transaction, but if no objection arrives, the member may assume that the standing consent continues. A copy of the letter must be retained by the member.
- **Oral order-by-order**—A firm may provide an oral disclosure and obtain an oral consent from the customer on an order-by-order basis. Each oral communication must clearly explain the terms and conditions for handling the customer order and provide meaningful opportunity to object. The member must document, order by order, the customer's understanding of the terms and conditions and consent to the trade.
- **Written order-by-order**—The member firm may choose to make the same order-by-order disclosures on a written basis.

4.6.2 Retail Customer Authorization for Net Trades

For retail customers, consent must be obtained on a **written order-by-order basis** prior transaction execution. Verbal consent is prohibited, as is a negative consent letter. The customer must evidence understanding of the terms and conditions of each net basis trade.

> ***Knopman Note:*** The permission requirements to execute a net transaction for a client differ for retail investors and institutional investors. Candidates should know the three ways to get approval from institutional clients and the one way to get approval from retail clients.

4.6.3 Discretionary Account Authorization for Net Trades

A **discretionary account** is an account in which a registered rep has the authority to make investment decisions on behalf of a client. In a discretionary account, a registered rep does not need the approval of a client prior to each transaction. Put another way, the broker-dealer need not look through the fiduciary to see which kind of approval applies.

Example

An investment advisory firm has discretion to trade a retail account. Since the adviser is an institution, the member may follow the net trade rules for disclosure and consent for an institution—negative consent, order-by-order oral, or order-by-order written.

Progress Check

1. To qualify for the intermarket sweep order (ISO) exception to the Manning Rule, a firm must have in place a supervisory system capable of:

    A. reconstructing time-sequenced order activities.
    B. receiving FINRA pre-approval for ISO orders.
    C. red-flagging ISO orders for FINRA review.
    D. measuring real-time risk in ISO order execution.

2. A member is not deemed to have traded ahead of a customer limit order if the member executes the customer's order within what timeframe?

    A. 15 seconds
    B. 30 seconds
    C. 60 seconds
    D. 90 seconds

3. Nasdaq system hours are:

    A. 9:30 am to 4:00 pm.
    B. 8:00 am to 8:00 pm.
    C. 4:00 am to 4:00 pm.
    D. 4:00 am to 8:00 pm.

4. A customer wishes to enter an order so that it will be executed immediately against the displayed quote up to its full size. Any portion of the order not executed immediately will not be routed elsewhere. This order should be marked:

    A. FOK.
    B. AON.
    C. IOC.
    D. GTC.

5. A customer places an order to purchase 100 shares of ABC stock at $45, but instructs their broker that they would actually pay $0.50 higher if needed. To facilitate this, their broker should place a:

    A. collared order.
    B. market peg order.
    C. discretionary order.
    D. not held order.

Progress Check—Solutions

1. **(A)** The ISO exception is only available when the customer order is received after the member has routed the ISO. FINRA requires that the member have supervisory systems capable of reconstructing time-sequenced order activity.
2. **(C)** The trade must be executed no later than one minute after the firm trades for its own account.
3. **(D)** Nasdaq system hours are 4:00 am to 8:00 pm. This is different than normal market hours, which are 9:30 am to 4:00 pm.
4. **(C)** An immediate-or-cancel (IOC) order instruction allows a customer to take the opposite side of a displayed quote and take up to the full size quoted, knowing that any remaining portion of the order will be immediately cancelled.
5. **(C)** A discretionary order is a traditional limit order but also includes an undisplayed price range that the customer will accept.

4.7 Fair Prices and Commissions

FINRA Rule 2121, commonly referred to as the 5% mark-up policy, requires member firms to charge customers fair prices and commissions. The rule applies to principal and agency trades as well as transactions done on a riskless principal or net basis.

Since the 1940s, FINRA has followed a **5% policy** to determine the maximum amount of mark-up or commission that can be applied to a trade. FINRA provides the following interpretation of the policy:

- The 5% policy should be considered a guide, not a hard-and-fast rule.
- A mark-up pattern of less than 5% may be considered unfair or unreasonable, in some cases.
- The determination of fairness must be based on consideration of all relevant factors, of which the 5% standard is just one.

> ***Knopman Note:*** The FINRA 5% policy is a guideline, NOT a rule. There are cases where a higher than 5% fee may be justified.

Factors that should be considered in a fair-price policy include:

- The type of security involved, and customary fair prices charged across the industry by type
- The availability of the security in the market. Charges should not be as high for easily accessible securities.
- The price of the security. Expressed as a percentage, a mark-up is usually greater for low-priced securities than for higher-priced ones.
- The dollar size of the transaction. Customers should receive some consideration in pricing large orders.

Securities sold with a prospectus or an offering circular at a public offering price (e.g., new issues, mutual funds), along with municipal securities, are not subject to the 5% policy. These types of transactions are subject to different rules, which are beyond the scope of this examination.

> ***Knopman Note:*** The 5% mark-up policy applies to transactions in both listed and unlisted securities, but does not apply to investment advisory fees.

> ***Knopman Note:*** When a broker-dealer is trading as a principal, it can consider the fact that it is entitled to a profit when determining a fair price. When a broker-dealer is trading as agent, it cannot.

4.7.1 Calculation of Mark-Ups and Mark-Downs

The 5% policy mandates that the mark-up or mark-down charged to a customer when a firm is trading as principal be reasonably related to the current market price for the security. Therefore, for liquid stocks, the percentage mark-up or mark-down will be calculated off the inside market.

Example

MMAA sells ABC common stock to a client at $6.84 at a time when the inside market is 6.70–6.71. The best available price to the customer, as indicated by the best offer, is $6.71. The sale price of $6.84 represents a difference, or mark-up, of $0.13 or 1.94% (calculated as 0.13/6.71).

When a broker-dealer is purchasing as a principal, the mark-down is calculated in the same manner, but using the best bid.

For securities with limited trading, broker-dealers must use reasonable due diligence to determine the current market price for the security, including, but not limited to, ascertaining quotes from other firms.

Knopman Note: When determining an equity mark-up or mark-down, a firm would not consider its own cost (or basis) in the security; instead the firm should look to the current market price.

The 5% policy is different for debt securities. For debt securities, the mark-up or mark-down should first reflect the prevailing market price, which is established by the firm's contemporaneous cost or proceeds (i.e., recent purchase or sale price by that firm).

4.7.1.1 Proceeds Transaction

The 5% policy also applies to **proceeds transactions**, whereby a customer instructs a broker-dealer to liquidate one position and immediately use the proceeds to open a new position.

When executing a proceeds transaction, the commission or fee to liquidate the initial leg is added to the fee to open the new position in order to determine the total percentage mark-up or commission.

Example

Joe, a customer of XYZ Securities, asks the firm to sell his position in AAPL and use the money to open a position in GOOG. XYZ sells Joe's AAPL shares and buys GOOG for Joe when the best offer on the stock is $980. XYZ charges Joe a $10 commission to liquidate AAPL and a $15 mark-up to purchase GOOG. Therefore, the total fee charged on the trade is calculated as: (Total Fees for Both Transactions)/Best Offer = ($10 + $15)/$980 = 2.55%.

4.8 Extended Hours Trading

Regular market hours are from 9:30 am–4:00 pm, ET. **Extended hours trading** occurs outside regular market hours—both before (pre-market) and after (after-hours). Extended hours vary among exchanges. On the New York Stock Exchange and Nasdaq markets, pre-market hours are from 4:00 am–9:30 am, and after-hours are from 4:00 pm–8:00 pm. In general, retail investors are discouraged from extended-hours trading, due to the higher risk, greater volatility, and greater potential for unfavorable trade execution.

Before a customer executes any extended hours transactions, the member firm must deliver an **extended hours trading risk disclosure statement**. The disclosure may be delivered either in hardcopy or electronically. If the member allows online account opening and trading, the disclosure must also be posted on the member's website in a clear and conspicuous manner. The disclosure is only required for customers who wish to trade in extended hours. The extended hours trading risk disclosure statement must cover six specific types of risk involved.

FINRA has created a model statement that addresses all of these risks. A member may use the model, or any alternative format, provided that it 1) is substantially similar to the model statement and 2) addresses, at a minimum, all six risks.

FINRA advises members to consider whether to develop additional disclosures based on firm- or product-specific needs. These can include specific information relating to trading exchange-traded funds (ETFs), options trading, options exercises, and the effect of stock splits or dividend payments during extended hours trading.

The following sections will discuss the key risks of extended hours trading that must be disclosed to investors.

> ***Knopman Note:*** Customers wishing to engage in extended hours trading must receive a risk disclosure document which highlights the following after-hours trading risk factors: lack of liquidity, high volatility, unlinked markets, effect of news, and wider spreads.

4.8.1 Lower Liquidity

Trading volume in extended hours is a small fraction (approximately 2%) of the trading volume during regular market hours. Lower volume means less liquidity and wider bid–ask spreads. To fill an entire market order, a firm may need to execute at two or more different prices.

4.8.2 Greater Volatility

Volatility is the rate of change in a security's price. As volatility increases, so does risk. Increased volatility makes market orders especially risky, because prices can change quickly and sharply in a short time. In general, market orders should not be entered during extended hours, especially for thinly traded stocks. While limit orders are preferable, because they require a particular price, they may be only partially executed, or not executed at all, during extended hours.

Stop loss orders also carry significant risk during extended hours because they activate into market orders. Because of the reduced liquidity, it's possible for a stop order to be activated or triggered at one price and then be executed a considerable distance away; i.e., there can be large **gaps** in extended hours quotes.

Example

Joe enters an order to "sell 300 shares at 37.45 STOP" when the market is currently at 38.00–.15. The market subsequently starts moving down until there is an execution at 37.45. This trade will activate Joe's order into a market order. However, due to significant volatility and downward pressure on the stock, the best bid at the time the order is activated is 37.00. Therefore, Joe's order will be executed at 37.00, representing a significant deviation from Joe's stop price of 37.45.

The same **gap risk** exists during normal market hours, but is more pronounced during extended hours.

4.8.3 Changing Prices

During regular market hours, prices reflect the balance between large numbers of buyers and sellers. As many market makers cease quoting at the regular market close, extended hours prices may not reflect true market value. Prices can change drastically right after the close of regular market hours, as after-market trading begins. This change can be driven by speculation or manipulation, especially if news is announced.

4.8.4 Unlinked Markets

At times, the prices displayed on a particular extended hours trading system may not reflect the prices in other concurrently operating extended hours trading systems dealing in the same securities—this situation is called an **unlinked market**. An unlinked market may result in transaction executions at inferior prices than those available on a trading system not visible to the customer or broker. Although member firms have an obligation to seek best execution, fulfilling this duty is more difficult in extended hours trading.

4.8.5 News Announcements

Issuers often make news announcements after regular trading hours. It is common for companies to release quarterly earnings between 4:00 pm and 6:00 pm. If reported earnings beat consensus, stock prices can soar by 5%–10% or more. The opposite pattern is also common when companies report disappointing earnings.

Government agencies also may announce market-moving data releases before the market opens. For example, weekly jobless claims are announced by the US Department of Labor at 8:30 am on Thursdays. Monthly reports on housing starts, consumer spending, and nonfarm payrolls are also released in pre-market hours. High-frequency traders (HFTs) use powerful algorithms to trade on breaking news within fractions of a second of its release. This can increase price volatility.

4.8.6 Risk of Wider Spreads

The lower liquidity and higher volatility of extended hours trading often results in bid–ask spreads that are wider than normal, especially in thinly traded securities.

> ***Knopman Note:*** Investors may face wide spreads (a large difference between the bid and the ask) if they 1) trade outside of normal market hours or 2) trade penny stocks (discussed later).

4.9 Ethics and Rules Involved in Customer Orders

Securities professionals have an obligation to "observe high standards of commercial honor and just and equitable principles of trade," but what does that mean exactly? Regulators shed light on this by writing rules and giving guidance to help firms navigate their responsibilities. This section will review what is required and prohibited for FINRA member firms.

4.9.1 Best Execution

One mandate of broker-dealers is to obtain best execution for their customers. A FINRA member must use reasonable due diligence to ensure **best execution**. This means:

- Determining the best market for each customer order
- Making every effort to execute a market order fully and promptly, and
- Executing orders at prices as favorable as possible for the customer under prevailing market conditions

The factors that determine best execution include:

- The character of the market for the security, including price, volatility, relative liquidity, and available communications
- The size and type of transaction
- Quote accessibility
- Order terms and conditions, as communicated by the customer

Market makers should consider a variety of trading venues to determine where best execution is available. The **best market** requires firms to do more than simply ascertain a quote from a single exchange. This concept has helped to promote the development and growth of new types of electronic markets.

Quote accessibility is an important factor in determining reasonable due diligence. For example, quote access can often be limited for thinly traded stocks. Nonetheless, the best-execution obligation rule still applies.

The best-execution responsibility applies to all orders—exchange-traded and OTC, domestic and foreign. If an order is for a security on which limited price information or quotes are available, it is the member's responsibility to have appropriate policies and procedures in place. FINRA previously had a rule requiring broker-dealers to actually contact at least three market makers to ascertain quotes for illiquid securities. While the so-called **Three-Quote Rule** no longer exists, firms should nonetheless contact a reasonable number of other broker-dealers to ensure they have satisfied their best-execution obligation for the security.

The firm should document methods for determining the best market. FINRA has indicated that members generally should seek out several sources of pricing information or potential liquidity when filling customer orders. Policies and procedures should cover the handling of orders for foreign securities, so as to obtain the best execution when taking into account currency exchange rates and market structures.

> ***Knopman Note:*** To summarize best execution, when a MM considers where to route customer orders, it should consider:
>
> 1. The character of the market for the security
> 2. The size and type of transaction
> 3. The number of markets checked, and
> 4. Accessibility of the quotation
>
> The number of shares executed in a particular market is not a factor FINRA includes in the best-execution requirement.

4.9.1.1 Directed Orders

Best execution is not required in one case—when the member receives a customer's unsolicited order with instructions to route the order to a particular market for execution. In this case, the firm should follow the customer's instructions and must mark the order ticket as a **directed order**. Any broker-dealer to which such an order is routed must ensure best execution. This is the only case in which a member's best execution responsibility is transferrable to another broker-dealer. Unsolicited orders are still subject to the rule when the customer does not direct the order to be routed to a specific market.

4.9.1.2 Review of Execution Quality

Any member that regularly routes customer orders to another broker-dealer on an automated, non-discretionary basis must have procedures for conducting regular and rigorous reviews of the overall quality of trade execution if it does not conduct an order-by-order review. Here are guidelines for these reviews:

- They must be conducted on a security-by-security basis and by type of order (e.g., market, limit, etc.).
- They must be conducted quarterly, at a minimum.
- Members must determine whether material differences in execution quality exist among markets. If so, routing arrangements must be modified or justified.
- The member must compare the quality of executions from available competing markets, considering such factors as price improvement opportunities, the likelihood of limit order executions, the speed and size of executions, transaction costs, customer needs and expectations, and the existence of payment for order flow.

4.9.2 Prohibited Activities

FINRA Rules 2020 and 6140, and Nasdaq Rule 2120, provide that no member "shall effect any transaction in, or induce the purchase or sale of, any security by means of any manipulative, deceptive or other fraudulent device or contrivance." Basically, the rules prohibit all manipulative or deceptive means to sell securities.

Market manipulations can take many forms, including:

- False rumors that are circulated with the intent to influence prices in ways that will generate profits for the rumor-spreaders
- Traders who act together to manipulate prices, often by creating an artificial appearance of supply or demand (sometimes called a **stock pool** or **painting the tape**)

> ***Knopman Note:*** Painting the tape can inflate trading volume, manipulate the stock price, or both.

- **Pump and dump schemes**, in which promoters use false or misleading statements to inflate stock prices before shares are dumped on the public at a profit for promoters
- **Spoofing quotes**, in which a trader briefly displays a quote to manipulate prices to be higher or lower, with no intent to actually execute at the quoted price. In other words, spoofing refers to entering orders to entice other participants to join on the same side of the market, and then trading against the other market participants' orders.

- **Pre-arranged matched trades**, in which a trader inflates trading volume by executing (or arranging) both sides of a trade. This practice is common amongst penny stock promoters who want the public to believe active interest in a stock exists, when in fact little or none does.

> ***Knopman Note:*** Here are a few other types of market manipulation:
>
> - **Collusion** is a manipulative and prohibited practice where traders coordinate prices or the bid–ask spread. This goes well beyond negotiating trade prices (which is allowed). Note that an underwriting syndicate is allowed to act together to support a new issue by having one firm, on behalf of all the broker-dealers in the syndicate, place a stabilizing bid (discussed later).
> - Another type of manipulation is **layering**. Layering refers to entering limit orders with the intended effect of moving the market to obtain a beneficial execution on the other side of the market.
> - **Quote stuffing** is a prohibited practice where algorithmic traders enter and then quickly withdraw large orders for the purpose of creating confusion in the market and taking advantage of trading opportunities.

The following sections discuss more of these prohibited activities.

4.9.2.1 Complex Products

If the value of a security is derived from another asset (a **derivative security**) or is contingent on the occurrence of an event (a **contingency security**), the security is considered **complex**. Securities professionals should determine suitability and the customer's financial sophistication when recommending such investments and consider alternative, less-complicated investments that could also meet the customer's goals.

To make the suitability determination for complex products, firms must have adequate supervisory and compliance programs in place before registered representatives recommend them to clients. This includes training agents about complex products and deploying technology to identify and monitor market risk.

4.9.2.2 Interpositioning

Interpositioning means adding an additional broker-dealer between the member and the best market for a security so that the customer does not receive best execution. The prohibition on interpositioning applies to both principal and agency trades and all types of securities for both retail and institutional customers.

For example, an interpositioning violation occurs if a member routes a trade through another broker-dealer to receive **soft dollars** or payment for order flow and the client receives the same or a less favorable trade price.

If a member must use a second broker-dealer to ensure best execution on a trade, the due diligence responsibility for best execution remains with the original firm. However, if a second broker-dealer knowingly participates in interpositioning, the original firm may also be held in violation.

When a non-market-making firm executes an OTC trade on behalf of a customer, it should work through a market maker to ensure best execution. However, FINRA has indicated that when a market maker originates a trade, placing a broker-dealer between the customer and market maker is generally considered interpositioning and is prohibited.

The only exception to interpositioning is if the customer receives a more favorable price as a result of adding a second firm to the execution chain.

> ***Knopman Note:*** If introducing the additional party results in a superior price (not equal, but better), then doing so is allowed.

4.9.2.3 Front-Running

Front-running is the illegal practice of a broker-dealer trading equity securities when the firm or person entering the order is in possession of nonpublic information concerning an imminent block transaction in the security. Market participants front-run to take advantage of the market-making information inherent in the pending large order. Regulations regarding front-running are set forth in FINRA Rule 5270. A **block transaction** under this rule is generally defined as an order of 10,000 shares or more.

Example

California Pension Fund enters an order with a broker-dealer to buy 50,000 shares of ABC common stock. The trader who received the order quickly buys 3,000 shares for the firm's own account in anticipation of the value of ABC increasing upon placing the block order. This is a violation.

The prohibition on front-running also applies to trading-related derivatives, such as options and security futures, in advance of a known imminent block trade in either the derivative or the underlying.

Example

California Pension Fund enters an order to buy 500 call options on ABC common stock. The trader who received the order quickly buys 3,000 shares for the firm's own account in anticipation of the value of ABC increasing. This is a violation.

Once knowledge of the block transaction has been made publicly available due to execution and reporting of the trade, the front-running restrictions no longer apply.

Knopman Note: Even if part of a block transaction has already been executed, the entire order must be filled and publicly reported to avoid triggering a front-running violation.

The rules also provide a few exemptions from the front-running policy, including:

- Transactions where the member has information barriers to prevent the internal disclosure of block transactions

Example

California Pension Fund enters an order with a broker-dealer to buy 50,000 shares of ABC common stock. A trader in a different department of the firm, who has no knowledge of the fund's order, due to information barriers, subsequently buys 3,000 shares for the firm's own account. This is not a front-running violation.

- Transactions related to a prior customer order in the security
- Transactions to correct errors
- Transactions to offset odd lots (less than 100 shares)
- Transactions in compliance with the marketplace rules of a national securities exchange

Knopman Note: Make sure to review the exemptions from the front-running rules detailed above.

Although the rule specifically relates to front-running block orders, front-running other types of orders whereby the firm places its own financial interests ahead of a customer's may be a violation of other FINRA rules and regulations.

Knopman Note: If a firm is holding a customer's block order to buy shares, it could execute another customer's order in the security without being in violation of the front-running rule.

4.9.2.4 Market Manipulation and Rumors

FINRA prohibits the spreading of false or misleading rumors. Members may not make statements or circulate any information concerning any security if the member knows or has reasonable grounds to believe the information:

- Is false or misleading, or
- Would improperly influence the security's market price

Knopman Note: Tweeting newsworthy information as a means of public dissemination is not a violation as long as the information is accurate. However, if a CEO tweets newsworthy information about a company that is not factually accurate and which causes the stock to rise, this would be considered manipulative and deceptive. For example, if a CEO of a company tweets that they have secured funding to take the company private without knowledge of the company's board of directors, it would be considered market manipulation.

The manner of transmission is not important—rumors cannot be spread via any media, including personal contact, correspondence, emails, chat rooms, blogs, and websites. Indeed, even responding to or passing along rumors can be deemed prohibited behavior.

Example

Trader 1: Did you hear the one about Micromatix being acquired by Argent?

Trader 2: I don't believe that's true. But I won't say a word, if you want to play it.

Trader 1: Could you pump it a little on your end?

Trader 2: I'll see what I can do.

Trader 1 is pumping a penny stock with a false rumor of an acquisition. But is Trader 2 involved in spreading the rumor? The answer is yes, if the trader discusses a rumor he believes to be false.

It's important to note that the FINRA rule is not limited to spreading false rumors. It also prohibits creating or inducing a false or misleading **appearance of activity** in a security, or the market for it. In the example above, if Trader 2 now engages in trading Micromatix stock, regulators could conclude the purpose was to create an appearance of activity. The prohibited methods for creating a false appearance include:

- Executing transactions that involve no change in beneficial ownership
- Entering orders with knowledge that offsetting orders will be made by others

4.9.2.5 Securities Pools

A **pool** is a manipulative scheme involving two or more participants, in which trading is for the purpose of unfairly influencing the market price. Members are prohibited from engaging in, financing (e.g., through margin accounts), or soliciting discretionary orders for manipulative operations.

When member firms suspect that customers are entering orders for a manipulative pool, they should not extend margin. By financing a pool, the member or trader may be considered part of the manipulative scheme.

4.9.2.6 Undisclosed Joint Accounts

Under FINRA Rule 6140, members (firms) and employees may not hold interest in a joint trading account unless the account is reported to FINRA. The report must include:

1. Names of all joint account participants and their ownership percentages
2. The purpose of the account
3. Identity of the member carrying and clearing the account
4. Any written agreement authorizing the account

This provision covers both formal and informal—written or verbal—arrangements to share profits and losses from trading.

4.9.2.7 Marking the Open and Marking the Close

The opening and closing prices of a security each trading day have special importance because these are widely disseminated and used to benchmark market performance and mark-to-mark brokerage accounts. Unscrupulous firms may be tempted to manipulate the opening or closing prices of a security for this reason. This prohibited practice is known as **marking the open** or **marking the close**.

A common way to mark the close is to sell a small number of shares at a cheap price just prior to the end of trading to drive down the price. Subsequently, the trader purchases a larger block at that lower price.

Another way to manipulate the closing price is to place large orders into the market just prior to 4:00 pm and then cancel those orders before they are executed. This can create the appearance that there is substantial interest in trading the security, even if none exists.

> ***Knopman Note:*** A marking-the-close violation occurs if trades are placed with the intent to artificially affect the closing price.

4.9.3 Prohibited Transactions by Investment Advisers

The Investment Advisers Act of 1940 (IA Act) defines the role and responsibilities of an investment adviser. An **investment adviser** is defined as "an individual or entity (firm) that, for financial gain, engages in the business of advising others, either directly or through publications or writings, on the value of securities or advises on investing, purchasing, or selling securities, or that, for compensation and as part of a regular business, issues or promulgates analyses or reports on securities."

According to Section 206, it is unlawful for any investment adviser to:

- Employ any device, scheme, or artifice to defraud any client or prospective client
- Engage in any transaction, practice, or course of business that operates as a fraud or deceit upon any client or prospective client, and

- Act as principal for his own account without disclosing to his client in writing before the completion of the transaction

These prohibitions shall not apply to any transaction with a customer of a broker-dealer if the firm is not acting as an investment adviser in relation to such a transaction. For example, a firm provides both advice and brokerage securities to a client, but the client decides to place an unsolicited brokerage order without advice. In this case, these advisory rules do not apply.

Within the IA Act of 1940, certain specific business practices and behaviors are regulated. These include:

- **General disclosures**—An IA should disclose to its clients any fact that would have a material impact on that client's ability to judge, select, and hire the IA. Examples of required disclosures include:
  - Fees received for placing clients into specific funds or investments
  - Fees paid to solicitors for bringing in clients, and
  - Disciplinary actions by any regulator or governing agency
- **Disclosure of performance or selected recommendations**—If an IA wants to publish the firm's past recommendations or performance statistics, the disclosures must be comprehensive. Comprehensive recommendations include all recommendations or investments over the past 12 months. Selectively disclosing only winning recommendations, or a partial list of recommendations, is deceptive and prohibited. If performance (e.g., up 14% this year) is disclosed, the rate of return must be displayed net of fees (i.e., inclusive of fees) or the IA must prominently display returns both net and gross of fees.
- **Testimonials**—A testimonial is defined as a statement made by a client or investor made about their experience with the IA. Testimonials are heavily regulated and can only be used by an IA if it discloses 1) who gave the testimonial, 2) whether any cash or non-cash compensation was provided for the testimonial, and 3) any material conflicts of interest between the promoter and the IA.
- **IA agency and principal transactions**—If an IA acts as an agent or a principal in a transaction with a client, the IA must receive written client consent prior to the transaction.
  - An **agency trade** occurs if the IA arranges a trade between two of its advisory clients.
  - A **principal trade** occurs if the IA is the customer's counterparty, buying securities from the customer for its own account or selling its own securities to the customer.

IAs typically route traders through a broker-dealer, in which case these consents do not apply.

> ***Knopman Note:*** Like broker-dealers, investment advisers are required to register with the SEC or with the states where they operate. An exception is available for certain professionals (e.g., accountants, lawyers, etc.) who render incidental investment advice. That is, if the advice is incidental to the accounting or legal advice being rendered, the professional need ***not*** register as an investment adviser.

4.10 Uniform Practice Code (UPC) Rules

FINRA's **Uniform Practice Code (UPC)** is a body of rules and interpretations aiming to create uniform business practices within the broker-dealer community, especially in operations and trade settlement. The UPC is administered by FINRA's Uniform Practice Committee. Part of the committee's responsibility is to advise the FINRA Regulation Board on the clearance and settlement of securities transactions.

All OTC transactions in securities by members are subject to the UPC except:

- Exempt bank holding company securities
- Municipal securities
- Transactions between members that are cleared and settled through a registered clearing agent
- Transactions in securities issued by registered investment companies
- Transactions in direct participation programs (e.g., limited partnerships)

4.10.1 Settlement Process

Settlement is the process of transferring securities and cash between the buyer and seller of an agreed-upon transaction. Settlement of most equity trades is facilitated by the National Securities Clearing Corporation (NSCC), a subsidiary of the Depository Trust and Clearing Corporation (DTCC).

> ***Knopman Note:*** Securities, such as stocks and bonds, are typically deposited with a clearing house.

4.10.1.1 Continuous Net Settlement

To facilitate the clearing and settlement of tens of millions of trades per day between thousands of broker-dealers, NSCC/DTCC has developed the continuous net settlement (CNS) system, a netting and fail-control engine. The service is available to all full-service settling members of NSCC/DTCC.

Regardless of a dealer's trading volume, CNS nets each firm's securities obligations on a daily basis to one net-long and one net-short position in each issue. NSCC then becomes the counterparty to each trade, ensuring that each transaction is guaranteed on both sides. Any closing fail positions are marked to market daily and re-netted with new transactions, which also reduces risk.

Example

On Tuesday, the clients of ABC Brokerage, Inc., engage in the following trades for Disney common stock (DIS).

Transaction Time	Transaction Type	Transaction Amount
9:45 am	Buy	600 shares
10:30 am	Sell	2,000 shares
11:20 am	Sell	800 shares
12:45 pm	Buy	1,800 shares
3:00 pm	Sell	900 shares
	Total	**1,300 shares**

Overall, ABC clients were a net seller of 1,300 shares of DIS stock. Therefore, NSCC will require ABC to deliver 1,300 shares of stock, rather than requiring receipt and delivery for each of the five individual transactions. ABC will then allocate the adjusted DIS position among its clients internally.

The CNS system minimizes the need to deliver securities to each firm on a position-to-position or trade-by-trade basis. Cash dividends, stock dividends, bond interest, and mandatory corporate actions are automatically calculated and credited to participants through their CNS accounts.

Members and trade reporting facility participants must clear and settle transactions through a registered clearing agent that uses a continuous net settlement system.

4.10.1.2 Ex-Clearing Settlement

Securities transactions may only be settled **ex-clearing** if both parties agree to the transaction. To document any manual comparison, the following trade details must be included:

- Trade and settlement dates
- Securities and quantities traded
- Transaction price
- Accrued interest for fixed-income instruments
- Net or settlement dollar amount

Knopman Note: Ex-clearing describes a trade directly between two parties with a manual trade comparison process that does not engage electronic central clearinghouse services, such as those offered by NSCC/DTCC.

4.10.1.3 Settlement Cycle

Securities trades settle when the buyer delivers cash and the seller delivers the securities. In times past, physical stock certificates were delivered. Now, the transfer agent officially changes its ownership records, or, for shares held in **street name**, the brokerage firm changes its ownership records.

The SEC sets the regular way trade cycle for most equity trades, with settlement on the second business day after trade execution. For example, a trade on Monday would settle on Wednesday. The convention applies to most securities—including equities, mutual funds, ETFs, and corporate and municipal bonds.

> ***Knopman Note:*** Regular way settlement is T + 2.

To describe a settlement timeframe, the industry uses "T + #" where "T" indicates the trade date and "#" indicates the number of days after the trade date. Thus, an equity trade settling regular way is described as T + 2 settlement.

The rule specifically exempts some securities, agreements, and contracts:

- **Securities**—T + 2 does not apply to government securities (T + 1) or stock option contracts (T + 1).
- **Agreements**—T + 2 does not apply if both counterparties agree to a different settlement timeframe at the time of the transaction.
- **Contracts**—T + 2 does not apply to alternate settlement date contracts for:
  - Securities that the SEC may exempt by order
  - Cash sales after 4:30 pm on a new issue pricing date, when both parties to the transaction agree to a settlement date extension at the time of the transaction

4.10.1.4 Dates of Delivery

The table below shows various delivery methods and the accompanying settlement date under FINRA Rule 11320.

Delivery Method	Settlement Date
Cash (same day)	On the day of the transaction
Regular way	On the second business day following the trade (T + 2)
Seller's option	On any business day after T + 2 with notice at least one day prior to delivery
Buyer's option	On a date of the buyer's choice, no later than the expiration of the buyer's option to receive delivery
Contract due on holiday, Saturday, or Sunday	On the next business day
Delayed delivery	On the date agreed, at the time of the trade
Prior to delivery date	Early acceptance or rejection is at the election of the purchaser

4.10.2 When-, As-, and If-Issued Contracts (WI)

Newly issued securities often trade on a **when-, as-, and if-issued** basis—shortened to **when-issued** or **WI**. This means:

- **For equities**—The IPO offering date and price have not yet been finalized.
- **For debt**—The offering date and coupon rate have not yet been finalized.

When-issued securities are most common for new issues where the securities do not yet trade. Securities trade WI until the offering date. If enough interest exists for the new issue, the offering is finalized and the WI settlement date is set.

In addition to new-issue equities, US Treasuries and stock splits often trade WI.

FINRA's Uniform Practice Code rules require trade confirmations in such securities to be marked **WI**. The confirmation must also include:

- A description of the security and plan under which it will be issued or distributed
- A designation that FINRA will rule on contract performance, and
- A provision for marking the contract to the market

For purposes of valuing WI securities, FINRA requires that they be **marked to the market**. If the WI period is lengthy, a member may require the customer to deposit cash or collateral to secure the contract through the settlement date. Any deposit must be segregated on the member's books and may not be used for any purpose except to secure these contracts.

The settlement date for WI securities is determined by the UPC Committee at a time when a sufficient percentage of the issue is accounted for by outstanding commitments or orders. Delivery is made on the business day after the seller has submitted written notice of an intent to deliver securities.

Open market WI contracts publicly offered through a syndicate or selling group, such as an IPO, are settled the day the syndicate's contracts are settled.

The UPC Committee may cancel or terminate WI contracts:

- If securities are not issued
- If it is necessary to resolve settlement conflicts
- If there are material changes in the redemption schedule, dividend payments, interest rates, maturities, yields, or exercise price

> ***Knopman Note:*** When a re-organized company emerges from bankruptcy with an IPO, the newly issued shares will generally trade when-issued with a "v" symbol at the end of the ticker. Once the shares are formally issued, the "v" symbol is removed.

4.10.3 Ex-Dividend, Ex-Rights, and Ex-Warrants

For companies issuing warrants or rights or paying dividends, the timing of a trade will determine whether the buyer or seller receives the additional securities or dividends. The first day a security trades when the buyer will *not receive* dividends, rights, or warrants is called the **ex-date**.

- **Ex-dividend**—Settlement will occur after the dividend record date, so the dividend will be paid to the seller rather than the buyer.
- **Ex-rights**—Settlement will occur after the rights record date, so rights will be issued to the seller.
- **Ex-warrants**—Settlement will occur after the warrants record date, so warrants will be issued to the seller.

In general, these settlement procedures ensure that the rightful party to the trade (i.e., buyer or seller) receives the dividend, right, or warrant. Investors buying and selling on or around the ex-date must be familiar with and understand these dates as well as which party will receive the distribution.

> ***Knopman Note:*** Warrants are similar to call options in that they allow investors to purchase stock for a specific price. They are usually issued with another security, such as a bond or preferred stock. It is important to note that warrants do not pay dividends.

4.10.4 Dates Relating to Dividends

The **declaration date** (i.e., announcement date) is the date on which the board of directors declares a dividend. At this time, the board also specifies two other important dates: the **record date** and the **payable date**. The **record date** is the date upon which a stockholder must be a registered owner of the stock—a **holder of record**—to receive the dividend. The **payable date** is the date payment is actually made—generally about three weeks after the record date.

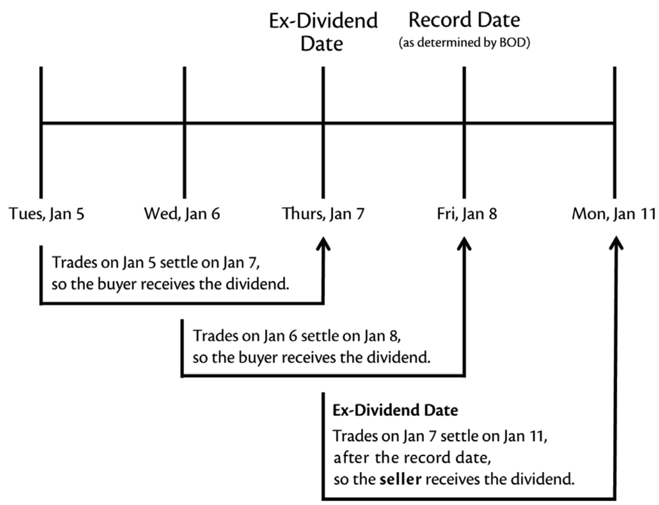
Another important date in the dividend payment process is the **ex-dividend date**. The ex-dividend date governs who, upon the execution of a stock trade, will receive a dividend. The determination of this date is based on the practice of **settlement**, which, again, is when the buyer and seller must both complete a stock trade. Most equity trades settle regular way **(T + 2)**. The ex-dividend date is also impacted by the size of the dividend.

> ***Knopman Note:*** It is important to note that the record date is the date that determines which shareholders will receive the dividend.

4.10.4.1 Dividends Worth Less Than 25%

For cash or stock dividends worth less than 25% of the value of the subject security, the ex-dividend date is one business day before the record date. Most cash dividends are for less than 25% of the value of the subject security.

The ex-dividend date is the first day upon which a buyer can purchase stock without receiving the dividend. Because it takes two business days to settle a trade, the ex-dividend date is one business day prior to the record date. If a trade occurs before the ex-dividend date, the buyer receives the dividend because the trade will settle by the record date, and the buyer will be the holder of record. However, if the trade takes place on or after the ex-dividend date, the seller receives the dividend because settlement will take place after the record date, and the seller will still be the holder of record. Below, see how a trade executed on the ex-dividend date does not settle on or before the record date.



The price of the stock drops by the amount of the dividend as of the ex-dividend date. This happens because a buyer will no longer receive the dividend upon purchasing the shares, and is therefore unwilling to pay for it.

Example

Regular way trade settlement is T + 2. If a stock is bought on Tuesday, it settles on Thursday. If the record date is Thursday, it will go ex-dividend on Wednesday. Therefore, an individual buying the stock on Tuesday will receive the dividend. However, an individual buying the stock on Wednesday will not.

The recipient of the dividend is summarized here:

Date of Transaction	Recipient of Dividend
Before ex-dividend date	Buyer
On or after ex-dividend date	Seller

4.10.4.2 Dividends Worth 25% or More

For cash or stock dividends worth 25% or more of the value of the subject security, the ex-dividend date is the first business day following the payable date. Many forward splits are worth 25% or more of the subject security. The most common example of this is a 2-for-1 split, which can be thought of as a 100% stock dividend. In this case, those investors who purchase the stock prior to the actual split (i.e., payable date) are buying pre-split shares. The next day, the stock will trade ex-dividend, which can be thought of as post-split shares.

4.10.4.3 Other Ex-Dividend Rules

For stock dividends or splits relating to American depositary receipts (ADRs) and foreign securities, the ex-date is designated by the UPC Committee. If definitive information is not received far enough in advance of the record date to permit designation of an ex-dividend or ex-warrants date, the UPC Committee will designate the first business day that is practical in light of the circumstances.

4.11 Adjustment of Orders

FINRA Rule 5330 requires members to adjust open customer orders for corporate events that affect the security's price and/or number of shares, including:

- Cash dividends
- Stock splits and stock dividends
- Special situations

For this purpose, open orders include limit orders, stop orders, and stop limit orders. The adjustment in order terms must be made before the market opens on the day the security will be first quoted ex-dividend, ex-rights, or ex-warrants. Adjusted open orders will retain existing time priority over new orders entered.

In all examples of these adjustments below, assume the customer has entered a limit order to buy 100 shares of ABC stock at $30 per share and the order remains open, but not executed, because the price has not yet dropped to $30.

4.11.1 Cash Dividends

Prior to the open of trading on the ex-dividend date, all open orders *below* the current market price are automatically reduced by the amount of the dividend. Orders below the market are buy limit, sell stop, and sell stop limit. As discussed previously, the ex-dividend date is usually one business day before the record date.

> ***Knopman Note:*** For cash dividends, orders entered at or below the market are reduced on the ex-dividend date—this includes buy limit, sell stop, and sell stop limit orders.

If the cash dividend includes fractions of a cent, the adjusted share price is rounded down to the nearest whole cent. There is no adjustment for cash dividends of less than one whole cent per share.

Example

ABC stock has declared a 25-cent-per-share dividend payable to holders of record on Friday. Therefore, the ex-dividend date is Thursday. At the close of trading on Wednesday, the books will be closed for purposes of paying this dividend, and the stock will then trade ex-dividend. A buy limit order for 100 shares at $30 will automatically be reduced to a limit price of $29.75. Orders above the market, such as sell limit orders, would not be adjusted.

Note: If the dividend paid was $0.253 per share (25.3 cents per share), the open orders would be adjusted down to $29.747 and then rounded down to $29.74.

Knopman Note: Dividends for fractional cents are rounded up to the nearest whole cent and then the price is adjusted downwards by that amount.

Customers may enter a **do not reduce (DNR)** instruction if they do not want their orders automatically reduced. With a DNR attached, the limit order would remain at $30 at the close of trading on Wednesday. DNR instructions only apply to cash dividends, not stock dividends or rights.

4.11.2 Stock Splits and Dividends

A **stock split** is an adjustment in an issuer's outstanding share count. After a stock split, each investor's ownership position remains unchanged. Rather, the number of outstanding shares and the value per share are adjusted.

A stock split in which the shareholder receives additional shares is called a **forward split**. A split in which the shareholder's share count is reduced is called a **reverse split**. The adjustment rules described below apply only to forward splits. All open orders must be cancelled prior to reverse splits, as described in the special situations section below.

Technically, a forward stock split and a stock dividend are the same type of event. The shareholder receives additional shares, with each share proportionately worth a lesser price. The total value of shares remains about the same.

Example

ABC stock splits 2-for-1. Instead of holding 100 shares at $30, the investor has 200 shares at $15. The total value of the position remains $3,000 (200 × $15).

Example

ABC declares a 20% stock dividend, meaning that an investor will receive one new share for every five shares held. Instead of holding 100 shares at $30, the investor now has 120 shares at $25. The total value of the position remains $3,000 (120 × $25).

At the close of trading on the day before the ex-dividend or ex-distribution date, orders below the market must be adjusted.

The formula for adjusting shares is to:

1. Determine the ratio of post-split shares to pre-split shares.
2. Multiply the size of the original order by the numerator of the ratio.
3. Divide the results by the denominator of the ratio.

Example

As in the previous section, this example is using an order to buy 100 shares at $30.

A 20% stock dividend means that an investor receives one new share for every five shares she owns. So, the ratio is six new shares divided by five old shares: 6/5. A 100-share order would be adjusted as follows:

1. Multiply the original size of the order by the numerator: 100 × 6 = 600, then
2. Divide by the denominator: 600/5 = 120 Shares

If this calculation produces a fraction, the order is adjusted down to the next lowest whole number of shares.

The price can be adjusted by dividing the original order price by the numerator of the ratio and multiplying it by the denominator:

1. $30/6 = 5
2. 5 × 5 = $25

Therefore, an order to buy 100 shares at $30 becomes an order to buy 120 shares at $25, after a 20% stock dividend. Notice how the $3,000 total value of the order is unchanged:

- Before the adjustment: 100 Shares × $30 = $3,000
- After the adjustment: 120 Shares × $25 = $3,000

Knopman Note: Expect to see a few questions on the exam on adjusting stock splits and stock dividends.

4.11.3 Special Situations

For corporate actions other than cash dividends and forward splits, the adjustment rules vary as follows:

- **Dividends payable in either cash or securities at the shareholder's option**—The open buy order price must be reduced by the value of the cash or securities, whichever is greater.
- **Dividends payable in both cash and securities**—The open buy order must be adjusted by the sum of the separate parts (cash and securities) in a two-step calculation. First, the price is adjusted downward by the cash amount of the dividend. Then, the order is adjusted for the split value.

- **Indeterminate value**—If the value of a stock dividend cannot be determined, the order must be reconfirmed with the customer before it can be executed.
- **Reverse split**—A reverse split is deployed by issuers to avoid falling below exchange minimum listing requirements. It increases the price of the stock and converts each position into proportionately fewer shares. All open orders are cancelled anytime there is a reverse split.

Knopman Note: After a reverse stock split, all open orders are cancelled.

Unit Exam

1. XYZ Corporation declares a $0.308 per share dividend. On the morning of the ex-dividend date, an open order to sell XYZ stock at $30 would:

   A. be adjusted downwards to $29.69.
   B. be adjusted downwards to $29.70.
   C. be adjusted upwards to $30.31.
   D. not be adjusted.

2. A market maker sells XYZ common stock, which it previously purchased for $17.00 per share, to a client for $18.00 per share. At the time of the transaction, the inside market was 17.80–17.82 and the most recent transaction in the market had occurred at $17.79. Under the FINRA 5% policy, this represents a mark-up of:

   A. $0.18 per share.
   B. $0.20 per share.
   C. $0.21 per share.
   D. $1.00 per share.

3. Inserting a second broker-dealer between the member and the best market for a security, so a customer does not receive best execution, is a violation referred to as:

   A. layering.
   B. front running.
   C. interpositioning.
   D. collusion.

4. The NBBO in ABC Company stock is $72.12/$72.15. Which of the following is a marketable limit order?

   A. Buy 100 limit $72.10
   B. Buy 100 limit $72.15
   C. Sell 100 limit $72.16
   D. Buy 100 at the market

5. One exception to the Order Protection Rule allows a trade-through if the affected trading center displayed a quote equal or inferior to the trade price within what increment of time prior to the trade-through?

   A. One second
   B. Five seconds
   C. Ten seconds
   D. One minute

6. Which of the following is not required on an order ticket?

   A. CUSIP number
   B. Whether the trade is discretionary, solicited, or unsolicited
   C. Time of order entry
   D. Customer account number

7. Which of the following is not a factor that a market maker must consider when determining best execution on behalf of a client?

   A. The size and type of transaction
   B. The number of markets checked
   C. The number of shares executed in a particular market
   D. The character of the market for the security

8. Broker-Dealer ABC wants to execute a net transaction on behalf of a retail client. Which of the following statements accurately describes the type of approvals the client must provide?

   A. The customer must give verbal consent prior to trade execution
   B. As long as the customer has been provided a negative consent letter and has not previously objected, no additional approval is required at the time of the trade
   C. The customer must give written consent prior to trade execution
   D. The customer must give written consent either prior to trade execution or within one business day after trade execution

Unit Exam (Continued)

9. Under the Limit Order Display Rule, market makers must update their quotes to reflect customer orders within:

    A. 10 seconds of order receipt.
    B. 30 seconds of order receipt.
    C. 60 seconds of order receipt.
    D. 90 seconds of order receipt.

10. Which of the following is not an exception to the Limit Order Display Rule?

    A. The customer requests that the order not be displayed
    B. The customer's limit order is marketable
    C. The customer's order is for less than 100 shares
    D. The customer's order is de minimis, representing no more than 20% of the market maker's size

Unit Exam—Solutions

1. **(D)** On the morning of the ex-dividend date, open orders at or below the market, including buy limit, sell stop, and sell stop limit orders, are all adjusted downwards by the amount of the dividend. Any dividends for fractional cents are rounded up to the nearest whole cent and then the price is adjusted downwards by that amount. However, because this is a sell limit order, which is entered at or above the market, the order will not be adjusted.
2. **(A)** When determining an equity mark-up, a firm would not consider its own cost in the security; instead, it is calculated based on the inside market (in this case best offer since the firm is selling the shares). Therefore, the mark-up is $0.18 (the difference between the sale price of $18.00 and best offer of $17.82).
3. **(C)** Interpositioning means adding an additional broker-dealer between the member and the best market for a security so that the customer does not receive best execution. This is usually done to generate extra mark-ups or commissions and is violation unless the customer receives a more favorable price as a result.
4. **(B)** A marketable limit order is a buy limit order with a price at or above the lowest offer (NBBO offer) or a sell order with a price at or below the highest bid (NBBO bid). It should be executed immediately, at least in part.
5. **(A)** The Order Protection Rule creates an exception for a quote that changes too fast for trading centers to effectively monitor. This is known as the one-second exception.
6. **(A)** The CUSIP number is not required on an order ticket.
7. **(C)** The number of shares executed in a particular market is not a best-execution requirement under FINRA rules.
8. **(C)** For retail customers, consent must be obtained in writing from the customer prior to trade execution. Note that for retail customers, both verbal consent and negative consent letters are prohibited means of approval for net trades.
9. **(B)** Unless an exception exists, market makers must update their quotes to reflect customer orders within 30 seconds of order receipt.
10. **(D)** An exception to the Limit Order Display Rule exists if the customer's size represents a de minimis change in the market maker's size, defined as no more than 10% (not 20%) of the market maker's size. The other choices are all exceptions to the rule.

Active Learning Strategies Help Information Stick

Active learning helps you engage with the material in a way that promotes retention. Here are a few of the techniques we recommend in our Study Essentials course to improve the effectiveness of your study process:

- Schedule study blocks to work for 50 minutes and then take a 10-minute break. Research shows that study sessions are more productive if you allow yourself to take planned breaks. If 50 minutes is too long, try working for 25 minutes with a 5-minute break.
- Beat the "forgetting curve," which kicks in when you stay away from material you just learned, rather than reinforce it. Learned information slips out of our memories over time if we don't take action to keep it there. The steepest drop in memory happens quickly after learning something new, so it's important to revisit the information you've learned the next day rather than skip a few days.
- Remember to use rhymes, acronyms, and mnemonics to make it easier to retain important information.
- Write and rewrite information in longhand. This is one of the best ways to practice repetition.
- Tell a vivid, detailed, outrageous story that incorporates key information you want to retain.

We can turn to the neuroscience of learning to understand why active learning helps you master content and improve outcomes, including boosting memory, retention, and recall. Information will be more deeply embedded in your brain, and more easily retrievable.

Here's to making the most of every single hour you study. We believe in your success!

—Dave

5. Trade Reporting

A member firm has continuing regulatory obligations after trade execution. Trades in equity securities must be reported to the appropriate trade reporting facility for dissemination to other firms, investors, and regulators. This chapter will cover the following topics:

- Reporting transactions to the appropriate facility
- Deadline to report a trade
- Appropriate modifiers when reporting trades
- Additional regulatory reporting for executed transactions

5.1 Trade Reporting Technologies

The vast majority of trades are executed and subsequently reported through an exchange, such as Nasdaq or NYSE. For these trades, member firms have no reporting obligations.

However, for over-the-counter transactions in exchange-listed and OTC equities, the member firm itself has the obligation to file a trade report. Broker-dealers use a number of different technological facilities to report trades.

5.1.1 Reporting Transactions in NMS Stocks

For NMS stocks, firms can report trades using one of three facilities:

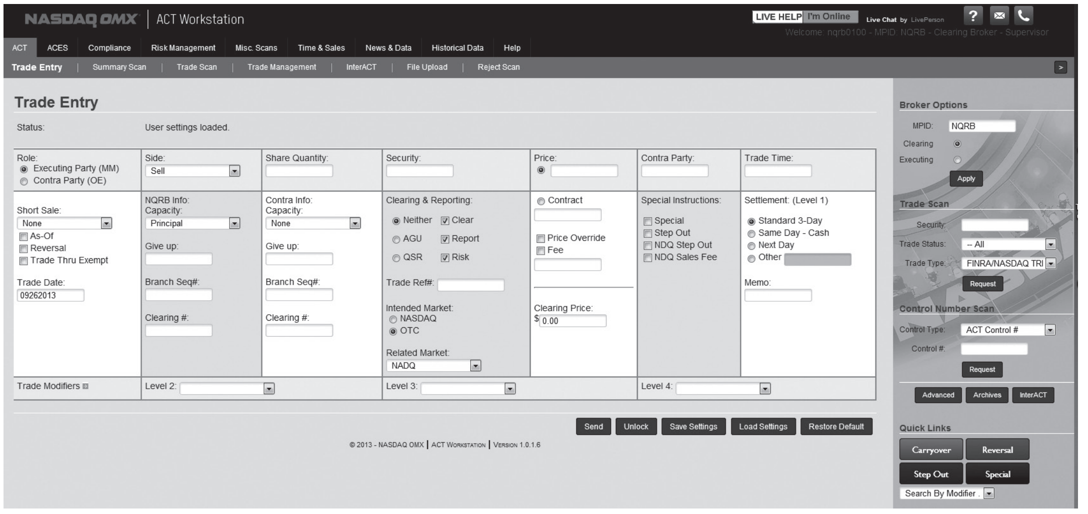
- FINRA/Nasdaq Trade Reporting Facility
- FINRA/NYSE Trade Reporting Facility
- Alternative Display Facility (ADF)

Although Nasdaq and NYSE operate competing facilities, trades in NMS stocks can be reported to either location, or to the ADF.

> ***Knopman Note:*** If a firm's primary reporting facility is having an outage the firm may continue to trade provided that it can report to a secondary facility. Alternatively, firms may stop executing until the problem is resolved or can route orders to another exchange or FINRA facility that is able to effectively report trades.

5.1.1.1 Trade Entry

Most firms use **trade reporting software** to enter trades into a reporting facility. For example, trade reports may be submitted to the FINRA/Nasdaq TRF via the Nasdaq OMX ACT Workstation, which disseminates transaction reports. A screenshot of the ACT software can be found below.



This screenshot shows how the firm can enter the required information in a trade report, including the following:

- Stock symbol
- Number of shares
- Price of the transaction
- Name of contraparty (firm on other side of transaction)
- Indication that the transaction is a buy, sell, or cross, and if applicable, sell short or sell short exempt
- Expected settlement
- Time of execution (in hours, minutes, seconds, and milliseconds), and
- Any necessary modifiers, discussed shortly

FINRA/NYSE TRF and ADF use trade entry screens similar to the one shown above.

5.1.2 Reporting Transactions in OTC Equities

FINRA operates the OTC Reporting Facility (ORF) for transactions in OTC equities, which include all equities that are not listed on an exchange, except for restricted stock.

The rules for OTC trade reporting are almost identical to those for NMS stocks. Both the TRF and ORF are open from 8:00 am–8:00 pm.

> ***Knopman Note:*** The TRF and ORF are open from 8:00 am–8:00 pm. The ADF is open from 8:00 am–6:30 pm.

5.2 Reporting Trades to TRF

In this section, the term **TRF** includes both the FINRA/Nasdaq TRF and the FINRA/NYSE TRF. The FINRA rules that govern the two systems are identical.

> ***Knopman Note:*** FINRA's Trade Reporting Facility (TRF) provides a mechanism for reporting transactions (including trades in Nasdaq and other exchange-listed securities) that occur off an exchange (i.e., not on the exchange itself). For example, an NMS stock that trades off the exchange will be reported to the TRF.
>
> The NYSE will not report a trade to the FINRA/Nasdaq TRF. Trades on the floor of the exchange are reported to the consolidated tape.

5.2.1 Timely Transaction Reporting

The deadline for reporting transactions varies based on the time of day. TRF hours of operation are 8:00 am–8:00 pm, ET.

All reportable transactions not reported within the required time period must be marked late, with the appropriate modifier. If FINRA determines a firm has a pattern of late reporting, the firm could be subject to disciplinary action. Exceptional circumstances that may excuse late reports are determined on a case-by-case basis but include instances of system failure or unusual market conditions with regard to a particular security or the entire market.

5.2.1.1 Transaction Reporting When TRF Is Open

When TRF is open (i.e., 8:00 am–8:00 pm), member firms must report transactions to the TRF as soon as possible, but no later than 10 seconds after execution. If the TRF is unavailable due to a technical problem, a firm can report trades by calling the TRF Operations Department.

> ***Knopman Note:*** TRF hours of operation are 8:00 am–8:00 pm.

5.2.1.2 Transaction Reporting When TRF Is Closed

Transactions executed while the TRF is closed (i.e., between 8:00 pm–8:00 am the next business day) are required to be reported by 8:15 am—within the first 15 minutes—the next time the TRF is open. For example, a trade executed at 7:00 am on Monday would need to be reported by 8:15 am that Monday morning.

Trades executed between 8:00 pm and midnight must be designated **as/of** in the trade report, indicating the trade is being reported after the execution date. For example, a trade executed at 9:00 pm on Tuesday would need to be reported by 8:15 am Wednesday morning with an **as/of** notation. The same applies for any trades executed on a non-business day.

> ***Knopman Note:*** A trade report is marked as/of when the trade occurred earlier than the current day (e.g., yesterday) or when reporting the reversal of a trade from a previous day.

5.2.2 Transactions Executed Outside Normal Market Hours

Normal market hours for equity trading are 9:30 am–4:00 pm, ET. Trades executed outside normal market hours must be denoted with a modifier to indicate this. The modifier will be entered on the ACT software, or ACT-equivalent trade report screen, that was shown earlier in this chapter. In this specific instance, a **.T** modifier must be selected. Modifiers will be discussed in greater detail shortly.

5.2.3 Untimely Transaction Reporting

Trades not reported in a timely fashion are considered late and must include the appropriate modifier indicating as much. For trades executed during normal market hours, a **.Z** modifier indicates a late report. For trades executed outside normal market hours, a **.U** modifier indicates a late report (you can remember .T is timely and .U is untimely).

Example

Party A and B execute a trade at 4:01:23 pm. The trade report is entered at 4:03:01 pm. This report requires a .U modifier because the trade was reported late (more than 10 seconds after execution).

Transactions that are not reported on the required date (i.e., on the trade date for pre-8:00 pm trades or on T + 1 for post-8:00 pm trades) must be reported as **as/of** trades on a later date. This is commonly notated as **T + N**.

> ***Knopman Note:*** A trade executed at 3:58 pm but reported at 4:10 would get a .Z modifier since it was executed during normal market hours.

Remember, a pattern of late reporting without reasonable justification or exceptional circumstances may subject the firm to disciplinary action.

> ***Knopman Note:*** FINRA considers several factors for consequences for late trading reporting–including the trade complexity.

5.2.4 Summary of Trade Reporting Deadlines

The chart below summarizes when trades must be reported:

> ***Knopman Note:*** Candidates should be familiar with trade reporting rules and appropriate uses of the .Z, .T, and .U modifiers.

Trade Execution Time	Reporting Requirement	Report Time	Trade Modifier
Midnight–7:59:59 am	8:15 am	8:00 am–8:15 am on trade date	.T
		After 8:15 am	.U
8:00 am–9:29:59 am	Within 10 seconds of execution	Within 10 seconds of execution	.T
		After 10 seconds	.U
9:30 am–4:00 pm	Within 10 seconds of execution	Within 10 seconds of execution	None
		After 10 seconds	.Z
4:00:01 pm–8:00 pm	Within 10 seconds of execution	Within 10 seconds of execution	.T
		After 10 seconds	.U
8:01:01 pm–11:59:59 pm	By 8:15 am on T + 1	8:00 am–8:15 am on T + 1	.T
	Designated "as/of"	After 8:15 am on T + 1	.U

5.2.5 Form T Reporting Obligations

All members must report trades to the Market Regulation Department on Form T when electronic submission is not possible. Manual submissions are necessary when, for example, the ticker symbol for the security is no longer available or a market participant identifier is no longer active.

Form T should not be used for any other purpose.

> ***Knopman Note:*** Form T is used to report OTC trades that cannot be submitted electronically.

5.2.6 Modifiers for Trade Reporting

Modifiers are required to indicate additional information regarding a transaction. Trade reporting modifiers are summarized in this table:

.C	Cash trade option (i.e., same-day settlement)
.F	Intermarket sweep order
.J	Sub-penny designator
.M	Nasdaq official closing price
.N	Next-day settlement
.P	Prior reference price
.Q	Nasdaq official opening price
.T	Timely trade report executed outside normal market hours
.U	Untimely trade report executed outside normal market hours
.W	Weighted average price/stopped stock
.X	Cross trade
.Z	Normal-market-hours trade reported late

Knopman Note: A trade report will identify whether a trade was a long sale or short sale. Note that there is not a specific trade modifier used to identify a short sale.

Some of these modifiers have unique requirements, as indicated in the following sections.

Knopman Note: There are various modifiers to indicate non-regular way settlement:

- .N indicates **next-day** settlement.
- .C indicates **cash** settlement, which means the trade settles the same day that it is executed.

5.2.6.1 .P—Prior Reference Price

The prior reference price (PRP) modifier is used to indicate that the execution price is based on the price of the stock at a time *other* than the execution time, such as a price from earlier in the day. The most common example of the use of this modifier is for a late execution. For example, if a trader receives a market order from a client at 10:00 am but forgets to enter the order until 2:00 pm, the firm would likely honor the price of the security at 10:00 am. This trade would be designated **.P** to indicate that the execution price is not based on the 2:00 pm price.

When using the PRP modifier, the trade report must include both the reference time (i.e., the time in the day used to price the trade) and the execution time. For example, if a trade is executed for a client at 11:00 am, but should have been executed at 10:55 am, the firm should report 10:55 am as the prior reference time and 11:00 am as the execution time. In effect, two times are reported for PRP trades. An exception to this is for trades executed within 10 seconds of the prior reference time. In this case, the PRP modifier is not required.

The PRP modifier is also used to execute on-open orders if the firm does not receive the opening price information immediately after the open. For example, a market-on-open order executed at 9:35 am but at the opening price would include the PRP modifier, a reference price of 9:30 am, and an execution time of 9:35 am.

A PRP modifier is also used to indicate exemptions from Reg NMS Rule 611 (the Order Protection Rule) for error corrections executed on the same day as the original transaction.

> ***Knopman Note:*** A trade report with a .P (i.e., PRP) modifier will include both the actual execution time and the reference time; the price reported will be the execution price.

Example

A client places an order to buy stock at 11:00 am. At 11:30 am, the trader realizes that the order wasn't executed. The trade can be executed at the 11:00 am price with a .P modifier indicating both times.

5.2.6.2 .W Modifier

The .W modifier has two distinct uses:

- Stop stock transactions
- Weighted average price transactions

.W—Stop Stock: A stop stock transaction is the result of an order that a member and another party agree will be executed at a specific price or better and is subsequently executed at that price. In a typical stop stock trade, the market maker will guarantee the client a fill at a specific price and then give the client an opportunity to look for a better price in the market.

Example

Market Maker A guarantees that it will fill a customer order to buy 100 shares of DEF at $10.75. The customer can then go look for a cheaper price in the market. Absent finding a price better than $10.75, the customer will return to Market Maker A and have the order filled at $10.75.

Similar to the .P modifier, a .W modifier will include two times—the actual execution time and the time the parties agreed to the stop stock price.

For trades that are executed within 10 seconds of the agreement to stop, the .W modifier is not required and only the time of execution must be reported.

The time of the stop stock price can be reported in seconds, since the price is usually negotiated live, whereas the execution time will be reported in milliseconds.

> ***Knopman Note:*** It is important to note that a trade report for a stop stock transaction will include both the time at which the price was agreed to and the actual execution time.

.W—Weighted Average Price: Occasionally, market makers will execute trades for clients at a weighted average price or at a price based on a special formula. For example, to execute a large trade for a customer, the market maker could accumulate the shares in the open market through multiple executions and then sell to the client at the weighted average price of all the transactions. This price is referred to as the **volume weighted average price (VWAP)**.

Example

A customer enters an order to purchase 12,000 shares of ABC, Inc., common stock. The market maker purchases stock in the open market in multiple executions, as follows:

Time	Shares	Price	Total Cost
10:01:30	1,500	$14.75	$22,125
10:01:55	2,500	$14.90	$37,250
10:02:25	1,000	$14.80	$24,800
10:02:55	4,000	$15	$60,000
10:03:00	3,000	$14.92	$44,760
Total	**12,000**		**$178,935**

As indicated, the firm was able to accumulate the 12,000 shares for the customer in five transactions. The market maker then sells the shares to the client at the weighted average price, calculated as $178,935/12,000 = $14.91.

In total, six transactions would be reported: five purchases by the market maker as indicated in the table and one sale by the market maker to the customer at the weighted average price for all 12,000 shares. Only the sale to the customer would require the .W modifier.

In cases where the client and market maker have a compensation agreement, the reported price would be the net price, including the compensation (i.e., mark-up).

5.2.7 Responsibility for Trade Reporting

The **executing party** is required to report the transaction. The executing party is defined as "the member that receives an order for handling or execution or is presented an order against its quote, does not subsequently re-route the order, and executes the transaction."

In a transaction where it is unclear who the executing party is (e.g., one negotiated via telephone), the seller is responsible for reporting the trade, unless the parties reach a different agreement.

When a broker-dealer receives an order and executes the order as principal, it is considered the executing party. Likewise, if a broker-dealer receives an order and executes as agent by matching with another order, it is also considered the executing party.

If a negotiation exists between the parties, it is possible that the executing party could be the broker-dealer that initially placed the order.

Example

Broker-Dealer 1 is offering ACME Corp, an OTC security, at 10.52. Broker-Dealer 2 places an order with Broker-Dealer 1 to buy ACME Corp, but not at 10.52. Rather, it bids 10.49. Broker-Dealer 1 decides to accept the price of 10.49 and executes with Broker-Dealer 2.

In this scenario, Broker-Dealer 2 is the executing party and must report the trade within 10 seconds of execution. Even though Broker-Dealer 1 initially received an order, the execution was eventually done against a quote provided by Broker-Dealer 2, at 10.49.

The responsibility for timely trade reporting lies with the executing party. The two sides of a trade are denoted as **EPID** (executing party) and **CPID** (contraparty).

Knopman Note: In a transaction between a member firm and a non-member firm, the member firm will always assume the role of the executing party.

5.2.7.1 Give-Up Relationship

Firms may engage other member firms to report transactions on their behalf. This is referred to as a **give-up relationship**. In order to enter into a give-up relationship, the parties must execute a written agreement and submit it to FINRA.

Knopman Note: A give-up agreement allows one broker-dealer to allow another to report a trades on its behalf.

When a firm gives up reporting responsibility to another firm, the trade is still reported under the MPID of the firm that traded (not the reporting firm).

The member who has given up reporting responsibility, however, is still responsible for the transaction submitted on its behalf. If the trade is not submitted in compliance with FINRA regulations, the initial firm can be subject to disciplinary action, along with the firm who actually reported the trade.

> ***Knopman Note:*** In a give-up relationship the trade is still reported under the MPID of the firm that executed the trade (not the reporting firm).

5.2.8 Reporting Capacity

Market makers can execute trades for customers in many different capacities, including agency, principal, and riskless principal. The manner in which a trade is reported to the TRF will differ based on capacity.

5.2.8.1 Agency Transactions

For **agency trades**, where the firm matches up a buyer and seller, the transaction is reported excluding the commission.

Example

Broker-Dealer A sells 1,000 shares to a client as agent for $37.50 per share, plus a commission of $10. The trade would be reported as 1,000 shares at $37.50.

5.2.8.2 Principal Transactions

For **principal transactions**, where the market maker executes out of inventory, the reported price will exclude any mark-up or mark-down. For purchases by a broker-dealer, the mark-down is added back to determine the reportable purchase price.

Example

Broker-Dealer A buys as principal 500 shares from a client at $39, including a $0.50 mark-down per share. The transaction would be reported as 500 shares at $39.50, since the mark-down is excluded from the trade report.

When the broker-dealer sells as principal, the mark-up is subtracted from the net price to determine the true sales price of the stock.

Example

Broker-Dealer A sells as principal to a client 5,000 shares at $60, including a $2 mark-up. The trade would be reported as 5,000 shares at $58.

5.2.8.3 Riskless Principal Trades

As described earlier, a **riskless principal trade** is one where a member, already having received an order to buy, purchases the security as principal and fills the existing order **at the same price**. A trade would also be riskless principal in the opposite scenario, where the member sells in the market having already received a sell order from a customer.

> ***Knopman Note:*** Riskless principal trades are permitted for NMS stocks and OTC equities, including penny stocks.

Even though a riskless principal trade consists of two **legs**, it is generally treated as a single transaction, as the shares instantaneously pass through the firm's inventory. Care must be taken to ensure that the volume of the trade is not double-counted. Therefore, the trade is generally reported as one transaction.

Alternatively, a riskless principal trade can be reported as two transactions, provided that one of the legs is identified as a riskless principal trade. The initial leg of the trade will be reported the same as any other trade (agency or principal) and disseminated for trade volume information. The second leg will be reported as riskless principal, but will be identified as a **clearing-only** report or a **non-tape, non-clearing** report. By reporting with these specifications, only the initial leg will be recorded for purposes of disseminating trading volume. Reporting the second leg is for informational purposes only.

Example

Broker-Dealer A sells as a principal 100 shares to another member at $40 to fill an existing customer order. The firm simultaneously buys 100 shares as principal from a customer at $40, less a mark-down of $1.50. This trade can be reported in two ways:

1. Report 100 shares at $40, capacity riskless principal
2. Report two trades as follows:
   a. 100 shares as principal at $40 (leg 1)
   b. 100 shares at $40 as riskless principal, identified as a non-clearing and non-tape or clearing-only report (leg 2)

If one leg of the trade is executed on an exchange, then that leg will be reported by the exchange. The non-tape report (the second leg) will be reported by the member firm.

If a broker-dealer executes a riskless principal trade on behalf of other member firms, it is required to submit non-tape reports identifying the other firms involved in the trade.

Knopman Note: Make sure to review how trade reporting works for riskless principal transactions.

5.2.8.4 *Give-Up Trades*

As discussed earlier, a **give-up trade** is when the executing broker reports a trade on behalf of another broker as if the executing broker actually did the trade.

Example

Broker A gets a buy order from a client but is too busy to place the trade, so she asks Broker B, who isn't as busy, to execute the order. Broker B then buys the stock from Broker C on behalf of Broker A's client. Although Broker B places the trade, he must give up the transaction and report it as if Broker A placed the trade. Therefore, the transaction is recorded as if Brokers A and C made the trade, even though Broker B executed it.

5.2.8.5 *Step-Outs*

A **step-out** refers to the execution of a large order by several firms, each assigned portions of the trade by another brokerage firm. In step-out trading, each brokerage receives credits or commissions for the share of the trade that it executes.

Step-out trading can also refer to an order that is executed entirely by one firm but that will then allocate all or part of the position to the client's account at another firm. Put differently, a step-out transfers one client's shares between accounts at two different firms—there is no exchange of shares and funds and no change in beneficial ownership.

Example

Safe Asset Management (SAM) holds trading accounts at ABC Brokerage and XYZ Brokerage. SAM instructs ABC to purchase 300,000 shares of Microsoft, but to step out of 100,000 shares to XYZ. This means that ABC will buy 300,000 shares on behalf of SAM, but will then transfer 100,000 of those shares into SAM's account at XYZ.

5.2.9 Transactions Exempt from Trade Reporting

The following transactions are not required to be reported to the TRF:

- Primary and follow-on offerings (however, shelf offerings are reported)
- Private placements
- Transactions reported on or through an exchange (e.g., NYSE)
- Transactions executed via a tender offer
- Transfers of securities under the jurisdiction of a bankruptcy court,

provided that the asset purchase agreement is not based on the security's current market price on or after the effective date

- Transfers of securities for redeeming an instrument on which the security is based (e.g., ADRs, ETFs)

Some transactions are reported for the purpose of regulatory fee assessments but not for publication and dissemination. These are:

- Transactions for which the buyer and seller have agreed to trade at a price substantially unrelated to the current market for the security, e.g., to enable the seller to make a gift
- Transactions executed upon the exercise of an option or any other right to acquire securities (e.g., rights or warrants)
- Transfers of proprietary securities where the transfer 1) is made in connection with a merger or an acquisition and 2) is not part of a trading or investment strategy. Members must give FINRA at least three business days' advance written notice of their intent to use this exception, including the reasons their transfer meets the terms of the exception.

Knopman Note: Be sure to review the list above of which transactions are exempt from trade reporting. Note that some of these transactions are reported for purpose of regulatory fee assessment, but not for publication and dissemination.

Knopman Note: If Party A wishes to give Party B a gift by selling securities at a price substantially different from the current market price, the trade must still be reported for fee assessment purposes. These may be referred to as "away from the market sales."

Who would report such a trade? In this case, the executing party (Party A) is required to report the transaction. If, however, only one party to the trade is a reporting member, the reporting member is required to report the trade.

5.2.10 Inclusion of Transaction Fees

The price reported in a transaction will always exclude the transaction fee.

Example

A firm that simultaneously receives an order to buy 300 shares with a $0.03 commission and sell 300 shares with a $0.03 commission would report both trades at the trade price, excluding the $0.03 commission.

Knopman Note: Trade reports do not include transaction fees.

FINRA members may agree in advance to transfer a transaction fee through the submission of a clearing report. This report will be submitted to the National Securities Clearing Corporation for processing, and it will provide pricing information to indicate a total per-share or contract price amount.

Prior to submitting any report, members and their respective clearing firms must have executed an agreement permitting such transfers and submitted it to FINRA Market Operations.

Example

A firm sells 100 shares to another firm at $15, plus a transaction fee of $0.03 per share. The transaction will be reported as 100 shares at $15 for publication.

The report must also include additional pricing information to indicate a $15.03 per-share price inclusive of the transaction fee for purposes of clearance and settlement through the National Securities Clearing Corporation.

Progress Check

1. Trade reporting modifiers are used for all of the following reasons except to identify:
   A. a cash-settled transaction.
   B. a short sale.
   C. a stop stock transaction.
   D. an intermarket sweep order.

2. A transaction that is required to be reported on the trade date but is in fact reported on a later date must be marked:
   A. T + 1 and late.
   B. T + 1 and as/of.
   C. PRP.
   D. as/of and late.

3. How are transactions in shares involved in a primary distribution by an issuer reported to the ADF, on the day of the IPO?
   A. With a special IPO designator
   B. Without commission or mark-up
   C. By each broker or dealer who participates in the underwriting
   D. They are not.

4. Broker-Dealer ABC sells 200 shares of XYZ stock to a retail client at $15.00 per share, which includes a $0.05 per share mark-up. The transactions will be reported for publication as:
   A. $14.95.
   B. $15.00.
   C. $15.05.
   D. $15.10.

5. A market maker executes a trade for a client at 10:00 am after realizing that it should have been executed at 9:55 am. Although the stock is trading at $12.72 at 10:00 am, the market maker decides to honor the price at 9:55 am, which was $12.68. Which price will be included in the trade report?
   A. $12.68
   B. $12.72
   C. Both prices
   D. The average of the two prices

Progress Check—Solutions

1. **(B)** There is not a specific trade modifier to identify a short sale. A cash-settled transaction is indicated with a .C, a stop stock transaction is indicated with a .W, and an intermarket sweep order is indicated with a .F.
2. **(D)** As/of indicates that the report was not made on the same date as the transaction. A designation of late indicates that the report did not meet the time requirement, which is 10 seconds in most cases.
3. **(D)** Transactions that are part of a primary distribution (IPO) or a registered secondary distribution (other than a shelf distribution) are not reported to the ADF.
4. **(A)** The price reported in a transaction will always exclude the transaction fee. Since the $15.00 price includes the $0.05 mark-up, the price reported will be $14.95 (which subtracts the $0.05 fees received by the firm).
5. **(A)** When a firm executes an order at a prior reference time for a client, the trade report will include the actual execution price. Note that both the execution time and prior reference time will be included, but only one price will appear in the trade report.

5.3 Cancelled Trades

Occasionally, member firms will enter into a transaction that must be cancelled, post-execution. When a trade is cancelled, the firm responsible for submitting the trade report is also required to submit the cancellation report.

5.3.1 Timing for Reporting Cancelled Trades

The timing for reporting cancelled trades can get somewhat complex. It depends on three factors:

1. Whether the trade was executed during normal market hours or outside normal market hours
2. Whether the trade was cancelled during normal market hours
3. Whether the trade was cancelled on the trade date or after the trade date

5.3.1.1 *Trades Executed During Normal Market Hours*

For trades executed during normal market hours and also cancelled during normal market hours on the same day, the cancellation must be reported within 10 seconds.

Example

A trade is executed at 3:00 pm and then cancelled 15 minutes later, at 3:15 pm. The cancellation must be reported by 3:15:10 pm.

If a trade is cancelled on the trade date between 4:00 pm–8:00 pm (i.e., after market hours), best efforts must be made to report the cancellation by 8:00 pm that day. Otherwise, it must be reported by 8:00 pm on the following day (T + 1).

Example

A trade is executed at 3:00 pm on Monday and then cancelled at 4:15 pm on Monday. The firm must make best efforts to report the cancellation by 8:00 pm on Monday. If it cannot, it must report the cancellation no later than 8:00 pm on Tuesday.

Finally, if a trade during normal market hours is cancelled on the trade date after 8:00 pm, the cancellation must be reported by 8:00 pm on the next business day (T + 1).

Example

A trade is executed at 3:00 pm on Monday and then cancelled at 9:15 pm on Monday. The firm must report the cancellation by 8:00 pm on Tuesday.

5.3.1.2 *Trades Executed Outside Normal Market Hours*

For trades executed outside the normal market hours of 9:30 am–4:00 pm and cancelled prior to 8:00 pm on the trade date, the cancellation must be reported by 8:00 pm.

Example

A trade is executed at 7:00 pm on Monday and then cancelled at 7:15 pm on Monday. The firm must report the cancellation by 8:00 pm on Monday.

If a trade executed outside normal market hours is cancelled at or after 8:00 pm on the trade date, the cancellation must be reported by 8:00 pm on the next business day.

Example

A trade is executed at 7:00 pm on Monday and then cancelled at 9:15 pm on Monday. The firm must report the cancellation by 8:00 pm on Tuesday.

5.3.1.3 Trades Cancelled After the Trade Date

Trades that are cancelled after the trade date are said to be **reversed**, rather than cancelled. For a trade cancelled on any date after the execution date but before 8:00 pm, the cancellation must be reported on the cancellation date by 8:00 pm.

Example

A trade is executed at 3:00 pm on Monday and then cancelled at 2:00 pm on Tuesday. The firm must report the cancellation by 8:00 pm on Tuesday.

For a trade cancelled on any date after the execution date and after 8:00 pm, the cancellation must be reported by 8:00 pm on the business day after cancellation.

Example

A trade is executed at 3:00 pm on Monday and then cancelled at 9:00 pm on Tuesday. The firm must report the cancellation by 8:00 pm on Wednesday.

5.3.1.4 Summary of Cancellation Deadlines

The table below summarizes the rules for cancelling trades:

Execution Time	Cancellation Time	Report of Cancellation Due
Trades cancelled on trade date		
Normal market hours	Same day, during normal market hours	Within 10 seconds
	Same day, 4:00 pm–8:00 pm	Best efforts by 8:00 pm; otherwise T + 1 before 8:00 pm
	Same day, after 8:00 pm	T + 1 before 8:00 pm
Outside normal market hours	Same day, before 8:00 pm	Same day, before 8:00 pm
	Same day, after 8:00 pm	T + 1 before 8:00 pm
Trades cancelled after trade date		
Any time	After trade date, before 8:00 pm	Cancellation date, before 8:00 pm
	After trade date, after 8:00 pm	Cancellation date + 1, before 8:00 pm

Knopman Note: Candidates should learn the rules for trade cancellations, as they are likely to be tested.

5.3.1.5 Definition of Cancellation Time

The time of cancellation is the earlier of:

- The firm responsible for cancellation informs the contraparty that the trade is being cancelled, or receives the same notice from the contraparty
- Both counterparties agree to cancel the trade, or
- The member with reporting responsibility cancels the trade on its books and records

5.4 Transaction Reporting to ADF

Other than the 6:30 pm closing time, the reporting rules for the ADF are substantially the same as those for the TRF. On both systems, the **executing party** reports with the same modifiers (.T, .U, .Z, etc.). Transaction reporting to the ADF is summarized as follows:

Trade Execution Time	Reporting Requirement	Report Time	Trade Modifier
Midnight–7:59:59 am	8:15 am	8:00 am–8:15 am on trade date	.T
		After 8:15 am	.U
8:00 am–9:29:59 am	Within 10 seconds of execution	Within 10 seconds of execution	.T
		After 10 seconds	.U
9:30 am–4:00 pm	Within 10 seconds of execution	Within 10 seconds of execution	None
		After 10 seconds	.Z
4:00:01 pm–6:30 pm	Within 10 seconds of execution	Within 10 seconds of execution	.T
		After 10 seconds	.U
6:30:01 pm–11:59:59 pm	By 8:15 am on T + 1 Designated "as/of"	8:00 am–8:15 am on T + 1	.T
		After 8:15 am on T + 1	.U

All other rules regarding trade reporting to TRF apply equally to ADF reporting, including:

- Modifiers
- Form T

5.4.1 Reporting Trade Cancellations

ADF cancellations rules are identical to those for the TRF, except that the 8:00 pm cutoff is, again, moved earlier, to 6:30 pm. The rules are summarized here:

Execution Time	Cancellation Time	Report of Cancellation Due
Trades cancelled on the date of execution		
Normal market hours	Same day, during normal market hours	Within 10 seconds
	Same day, 4:00 pm–6:30 pm	Best efforts before 6:30 pm; otherwise T + 1 before 6:30 pm
	Same day, after 6:30 pm	T + 1 by 6:30 pm
Outside normal market hours	Same day, before 6:30 pm	Same day, before 6:30 pm
	Same day, at or after 6:30 pm	T + 1 before 6:30 pm
Trades cancelled after the execution date		
Any time	After trade date, before 6:30 pm	Cancellation date, before 6:30 pm
	After trade date, at or after 6:30 pm	Cancellation date + 1, before 6:30 pm

5.4.2 Acceptance of ADF Trades

With the ADF software, the non-executing party has 20 minutes to accept any trades entered by the executing counterparty. Under FINRA Rule 7140, the ADF system may accept locked-in trades through the following methods:

- **Trade-by-trade match**—Both parties to the trade submit transaction data, and the system performs an online match.
- **Trade acceptance**—The executing party enters its version of the trade data into the ADF system. The contraparty then reviews the trade report and accepts or declines the trade. An acceptance results in a locked-in trade; a declined trade report will be carried over at the end of trade-date processing and will remain in the system but will not be subject to the automatic lock-in process.

Knopman Note: The timeline for transaction reporting is as follows:

1. Executing party reports the transaction within 10 seconds.
2. Non-executing party confirms the transaction within 20 minutes.

5.4.2.1 Automatic Lock-In

As of July 13, 2015, any trade that remains open (i.e., unmatched or unaccepted) at the end of its entry day will be carried over for continued comparison and reconciliation. The system will automatically lock in and submit to DTCC as such any carried-over T to T + 21 (calendar day) trade if it remains open as of 2:30 pm on the next business day. The system will carry over any T + 22 (calendar day) or older "as/of" trade that remains open, but such a trade will not be subject to the automatic lock-in process.

5.5 Reporting Transactions in OTC Equity Securities

The rules for reporting transactions in OTC equity securities are almost identical to those for reporting transactions in NMS stocks. An **OTC equity security** is defined as any equity that is not an NMS stock; for example, those quoted on the OTC Pink.

Restricted equity securities (i.e., unregistered stock) are not included in the definition of an OTC equity security. As discussed shortly, restricted stock is subject to different reporting requirements.

Transactions in OTC equity securities and restricted equity securities are reported to the OTC Reporting Facility (ORF).

5.5.1 Timing of Trade Reports

The timing of trade reports for OTC equities is identical to that of NMS stocks reported to the TRF. The table is reprinted here for convenience and reinforcement:

Trade Execution Time	Reporting Requirement	Report Time	Trade Modifier
Midnight–7:59:59 am	8:15 am	8:00 am–8:15 am on trade date	.T
		After 8:15 am	.U
8:00 am–9:29:59 am	Within 10 seconds of execution	Within 10 seconds of execution	.T
		After 10 seconds	.U
9:30 am–4:00 pm	Within 10 seconds of execution	Within 10 seconds of execution	None
		After 10 seconds	.Z
4:00:01 pm–8:00 pm	Within 10 seconds of execution	Within 10 seconds of execution	.T
		After 10 seconds	.U
8:01:01 pm–11:59:59 pm	By 8:15 am on T + 1 Designated “as/of”	8:00 am–8:15 am on T + 1	.T
		After 8:15 am on T + 1	.U

5.5.2 Other Similarities to TRF

The following sections from the TRF discussion earlier in this chapter apply equally to the OTC Reporting Facility:

- Trade reporting modifiers (e.g., .W, .N, etc.)
- Use of Form T
- Reporting trade capacity (e.g., agent, principal, give-up)
- Reporting trade cancellations

5.5.3 Restricted Equity Securities

Transactions in restricted equity securities under Rule 144A between midnight and 8:00 pm (e.g., 10:00 am, 3:00 pm, or 7:00 pm) must be reported by 8:00 pm on the same business day as the transaction.

Transactions between 8:00 pm and midnight (e.g., 8:01 pm or 11:00 pm) must be reported by 8:00 pm on the following business day.

Rule 144A, discussed later, allows for unregistered securities to be sold to qualified institutional buyers (QIBs).

5.5.3.1 *Cancellations for Restricted Equity Securities*

The cancellation procedures for trades in restricted equity securities are slightly different than those for OTC equities. They are summarized here:

Cancellation Time	Report of Cancellation Due
On trade date, before 8:00 pm	On trade date, before 8:00 pm
On trade date, at 8:00 pm or after	T + 1, before 8:00 pm
After trade date, before 8:00 pm	On date of cancellation, before 8:00 pm
After trade date, at 8:00 pm or after	On business day after cancellation, before 8:00 pm

5.5.4 Transactions in Foreign Equity Securities

In the context of trade reporting, a **foreign equity security** is defined as any OTC equity issued by a foreign corporation. NMS stocks (i.e., exchange-listed) issued by a foreign corporation remain NMS stocks and are excluded from this definition.

Transactions in foreign equity securities must be reported to the ORF unless:

- The transaction is executed on and reported to a foreign securities exchange, or
- The transaction is executed over-the-counter in a foreign country and is reported to that country's regulator of securities markets

> ***Knopman Note:*** Trades in foreign equity securities must be reported to either a US exchange or an SRO (e.g., FINRA, via TRF) unless the transaction is required to be reported to a foreign exchange or regulator.

5.6 Trade Reporting by Alternative Trading Systems

An **alternative trading system (ATS)** is a trading system that is not regulated as an exchange but that is a means of matching the buy and sell orders of its subscribers. Alternative trading systems are becoming more popular and have greatly contributed to the liquidity in publicly traded securities. ATSs will be discussed in more detail in later chapters, but for now it suffices to understand that these systems allow market participants to trade securities.

> ***Knopman Note:*** Similar to a stock exchange, an alternative trading system (ATS) is any system that provides a marketplace that brings together purchasers and sellers of securities. An ATS can be characterized as an "order and quote collection system."

ATSs must report trades to TRF or ORF within 10 seconds of execution. Reports must be submitted in accordance with the trade reporting guidelines discussed throughout this chapter.

> ***Knopman Note:*** Unless there's an exemption from trade reporting requirements (discussed below), an ATS must report trades to the TRF or ORF within 10 seconds of execution.

Each ATS must have a unique MPID used *only* to report transactions on that specific ATS; therefore, a member firm that operates more than one ATS must have a unique MPID for each one. Member firms are permitted to have two MPIDs for an ATS if they execute reportable transactions in fixed-income securities, in addition to transactions in equities.

5.6.1 Exemption from Trade Reporting

FINRA Rules 6183 and 6625 provide an exemption from trade reporting by the ATS if all the following criteria are satisfied:

1. Trades are between ATS subscribers that are FINRA members.
2. The ATS demonstrates that:
    a. The member subscribers are fully disclosed to one another at all times.
    b. The system does not permit automatic execution, and a member subscriber takes affirmative steps beyond the submission of an order to agree to a trade with another member subscriber.
    c. The trade does not pass through any ATS account, and the ATS does not in any way hold itself out to be a party to the trade.
    d. The ATS does not exchange shares or funds on behalf of the member subscribers or take either side of the trade for clearing or settlement purposes.
3. The ATS and the member subscribers agree in writing that the ATS trades shall be reported by the member subscribers and that the ATS is not a party to the transaction.
4. The ATS agrees to provide monthly data relating to the volume of trades, by security, executed by member subscribers. If the ATS fails to report such data, its exemption from reporting trades may be revoked.

Note that this rule only grants an exemption from trade reporting by the actual ATS. The member subscribers trading as counterparties are still subject to transaction reporting. Furthermore, the responsibility for reporting the transaction rests with the **executing party**, as defined earlier in this chapter.

5.6.2 FINRA Weekly Trading Volume

The SEC requires alternative trading systems (ATSs) to report to FINRA weekly volume information and the number of securities transactions within the ATS by security. These obligations are found in FINRA Rule 4552.

Each SEC-registered ATS must file trading information with FINRA within seven business days after the end of each week. The report must include the aggregate weekly trading information for each NMS stock and OTC equity security executed within the ATS during the previous week. FINRA will subsequently publish the information on its website.

5.6.3 Dissemination of Daily Trading Volume

FINRA Rule 6160 allows ATSs to disseminate their daily trading volumes to the public. However, the rule also details the exact nature of the reported volumes and required disclosures.

Any reporting member firm that chooses to publish daily trading volume for transactions in its ATS must base such volume solely on transactions reported by the ATS dark pool to the TRF. (As mentioned earlier, a **dark pool** is a type of ATS that does not disseminate its quotes to other market centers.) Because of the exemptions from trade reporting described in the previous section, this volume will not reflect all transactions in the pool. Therefore, the member firm must prominently disclose that its website may not reflect 100% of the volume for any given dark pool and that interested parties must consult all member websites to obtain a dark pool's total volume.

Furthermore, a member's dark pool transaction data will not be included in the published volume unless the member opts in to have its data included. To do so, a member operating a dark pool must certify in writing to FINRA that:

1. The member is opting in to having its dark pool transaction data included in the published data and acknowledges that its data may be presented as an overall percentage volume only or may be broken down by security, and
2. The member has obtained a separate MPID that will be used exclusively for reporting all transactions executed within the ATS dark pool.

> ***Knopman Note:*** Member firms that wish to publish or advertise trading volumes in an ATS can only publish those volumes that were also reported to a trade reporting facility. Firms should report trading volumes as accurately as possible.

5.6.4 Multiple MPIDs for Trade Reporting Facility Participants

As mentioned earlier, FINRA Rule 6160 permits member firms to use multiple MPIDs for trade reporting purposes. The MPID used to report a transaction must be identical to the MPID used to post a quote that resulted in execution.

Example

Broker-Dealer A posts a $75.10 bid on 300 shares under its MPID "BDAA." Upon execution against this quote, the trade must be reported under the same MPID of "BDAA."

5.7 Consolidated Audit Trail (CAT)

The Consolidated Audit Trail (CAT) requires broker-dealers to create a time-sequenced audit trail of all events in the life of an order. It allows the national securities exchanges and FINRA to effectively and efficiently reconstruct the life of a trade to investigate violations or manipulation and to ensure the general integrity of the marketplace.

The CAT system, required under Regulation NMS Rule 613, and implemented in 2021, replaced the order audit trail system (OATS) and consolidated options audit trail system (COATS), which were formerly the audit systems used for equities trades and options trades, respectively.

5.7.1 CAT Eligibility

Broker-dealers are required to report to CAT orders for NMS securities, OTC equity securities, and exchange-listed options. An order's lifecycle information reportable to CAT includes information on:

- Order origination and receipt;
- Routing of the order (e.g., to another department);
- Order cancellation;
- Order modification; and
- Order execution.

All order types, whether verbal, written, or electronic, are reportable.

> ***Knopman Note:*** A CAT report is required for order receipt, order transmittal to another department, and order execution. For example, in the situation that a customer places an order by phone at 11 am, the order is sent by the representative to the trading desk at 11:03 am, and the order is executed at 11:05 am, all three events would require a report.

5.7.2 Customer Account and Identifying Information

CAT, in addition to providing FINRA with order information, includes customer and firm information on all equity and options transactions.

Customer information required to be reported to CAT by broker-dealers includes:

- Account number;
- Type of account;
- Type of customer;
- Date of account opening; and
- Any identifier for a large trade.

5.7.3 CAT Reporting Obligations

All U.S. registered broker-dealers, regardless of size, that receive or originate orders in NMS stocks, OTC equity securities, or listed options are required to report to CAT. The reporting obligation includes all proprietary trading activities, such as market making. Importantly, there are no reporting exclusions or exemptions for broker-dealers.

Broker-dealers are permitted to engage a third party to submit CAT reports on their behalf, referred to as a **reporting agent**. Before the reporting agent begins submitting reports, the two parties must enter into a written agreement that specifies the functions and responsibilities of each party. Additionally, the broker-dealer must ensure they have a supervisory system in place that is designed to ensure that all the data reported to CAT by the reporting agent is timely, accurate, and complete.

5.7.4 Member Business Clocks

To ensure uniformity across firms and that each reportable event is accurate, CAT requires transactions to be reported with a time accuracy of within 50 milliseconds. Firms must synchronize their clocks every business day, prior to the open of trading. If necessary, firms should re-synchronize throughout the day to avoid drifting beyond the 50-millisecond cushion.

This synchronization must occur to within 50 milliseconds of National Institute of Standards and Technology (NIST) or to any time source that has been synced to within 50 milliseconds of the NIST.

If a firm is unable to re-synchronize during the day, it should maintain a record of the synchronization problem and notify FINRA. For example, midday re-synchronization could cause a trading system to malfunction, so the firm could delay synchronization until after the market closes, but must notify FINRA.

This rule applies *only* to clocks used for regulatory reporting. It does not apply to all clocks (e.g., an analog clock in a conference room).

Knopman Note: All business clocks used for CAT reporting purposes must be synchronized every business day prior to the open of trading.

5.7.5 CAT Transmission Requirements

Firms are required to submit daily electronic CAT reports to FINRA. The deadline to submit reports is somewhat complex.

A CAT "business day" begins at 4:15:00:01 pm EST on one market day and ends at 4:15:00:00 pm EST on the next market day. For example, 4:15:00:01 pm EST on Monday until 4:15:00:00 pm EST on Tuesday is a CAT business day. In another example, 4:15:00:01 pm EST on Friday until 4:15:00:00 pm EST on Monday is one CAT business day.

All CAT reports must be submitted to FINRA by 8:00 am EST on the calendar day following the end of the CAT business day. Here are a few examples:

Example

A trade is executed at 3:00 pm EST on Tuesday. The CAT business day ends at 4:15:00:00 pm EST on Tuesday. Therefore, the CAT report of the execution is due to FINRA by 8:00 am EST on Wednesday.

Example

An order is modified at 8:00 pm EST on Wednesday. The CAT business day ends on 4:15:00:00 pm EST on Thursday. Therefore, the CAT report detailing the order modification is due to FINRA by 8:00 am EST on Friday.

Example

An order is cancelled at 9:00 pm EST on Friday. The CAT business day ends on 4:15:00:00 pm EST on Monday—the next market day. Therefore, the cancellation report is due by 8:00 am EST on Tuesday. This is the same result as if the trade were canceled anytime on Saturday or Sunday.

Knopman Note: CAT reports are due at 8:00 am EST on the calendar day following the CAT business day.

Unit Exam

1. If an ATS has been granted a trade reporting exemption, and it then fails to report trading volume data to FINRA monthly, what is the penalty?

   A. A warning
   B. A fine
   C. Revocation of the exemption
   D. Suspension of trading authority

2. A trade is executed at 3:40 pm EST, but is not reported until 4:30 pm EST. The trade report:

   A. will include a ".T" trade modifier.
   B. will include a ".U" trade modifier.
   C. will include a ".Z" trade modifier.
   D. will not include any trade modifier.

3. A trade is executed on Monday at 10:30 am EST and is canceled by the parties on Wednesday at 3:00 pm EST. The report of the cancellation is due:

   A. within 10 seconds of cancellation.
   B. by 4:00 pm EST on Wednesday.
   C. by 8:00 pm EST on Wednesday.
   D. by 8:00 pm EST on Thursday.

4. Brokerage Firm A and Brokerage Firm B have a give-up relationship, in which trades are reported by Firm A but executed by Firm B. Which statement is accurate?

   A. The MPID of Firm A is used to report trades
   B. The MPID of Firm B is used to report trades
   C. The MPIDs of both firms are used to report trades
   D. A special supplemental MPID must be created and used to report trades

5. A client purchases 200,000 shares of ABC common stock through BD A, but requests that 100,000 of these shares be allocated to their account at BD B. This is referred to as a:

   A. step-out trade.
   B. give-up trade.
   C. not held trade.
   D. stop stock trade.

6. A client places a market order to sell stock at 1:00 pm. At 1:45 pm, the trader realizes that the order was not yet executed. To make up for the error, the trader honors the 1:00 pm price. The trade report will include a:

   A. .W modifier and indicate only the 1:00 pm time since that is the time of the price being honored.
   B. .P modifier and indicate only the 1:00 pm time since that is the time of the price being honored.
   C. .P modifier and indicate only the 1:45 pm time since that is when the trade is executed.
   D. .P modifier and indicate both the 1:00 pm and 1:45 pm times.

7. Which of the following statements regarding broker-dealer business clocks used for CAT reporting is least accurate?

   A. All clocks located on the premises of a broker-dealer must be synchronized
   B. All business clocks used for CAT reporting must be synchronized every business day prior to the open of trading
   C. All business clocks must be synchronized to within 50 milliseconds of NIST
   D. Broker-dealers must notify FINRA of any issues in regards to clock synchronization

Unit Exam (Continued)

8. For a trade cancelled during normal market hours, what is the deadline for reporting the cancellation to the ADF?

   A. 10 seconds after the trade is cancelled
   B. 30 seconds after the trade is cancelled
   C. By 6:30 pm the same day
   D. By 6:30 pm on the following day

9. For a trade executed during normal market hours, the non-executing party must confirm a transaction within:

   A. 10 seconds.
   B. 20 minutes.
   C. by 8:00 pm EST that day.
   D. by 8:00 pm EST the next day.

10. A trade is executed by Broker-Dealer ABC at 3:00 pm EST on Friday. ABC must submit a CAT report to FINRA by:

    A. 8:00 am EST on Saturday.
    B. 8:00 am EST on Monday.
    C. 8:00 am EST on Tuesday.
    D. 4:00 pm EST on Friday.

Unit Exam—Solutions

1. **(C)** Failure to report trading volume data on a monthly basis is a violation of FINRA rules and results in the revocation of the exemption.

2. **(C)** .Z indicates a late trade report for a trade executed during normal market hours. Late is defined as more than 10 seconds after execution. Note that a trade executed during normal market hours, but reported late after the market closes, still carries a .Z trade modifier since the trade was executed during normal market hours.

3. **(C)** When a transaction is canceled after the trade date before 8:00 pm EST, the cancellation report is required that same day prior to 8:00 pm EST. If a transaction is canceled after the trade date, but after 8:00 pm EST, then the report of the cancellation is due by 8:00 pm EST the following day.

4. **(B)** A give-up agreement allows one broker-dealer to allow another to report trades on its behalf. The trade is still reported under the MPID of the firm that executed the trade (not the reporting firm).

5. **(A)** A step-out refers to an order that is executed by one firm, but then all or part of the position is allocated to the client's account at another firm.

6. **(D)** .P trade modifier is used to indicate a prior reference price trade. A trade report with a .P modifier will include both the actual execution time and the prior reference time. Note that a .W is used to indicate stop stock transactions and volume weighted average price trades.

7. **(A)** All business clocks used for CAT reporting must be synchronized to within 50 milliseconds of NIST or to any time source that has been synced to within 50 milliseconds of the NIST. All business clocks are required to be synchronized every business day prior to the open of trading and firms must notify FINRA of any issues in regards to clock synchronization. This rule applies only to clocks used for regulatory reporting. It does not apply to all clocks (e.g., an analog clock in a conference room).

8. **(A)** The deadline for reporting cancellations during normal market hours is the same as for trade reporting—within 10 seconds.

9. **(B)** For a trade executed during normal market hours, the executing party must report the transaction within 10 seconds. The non-executing party must confirm the transaction within 20 minutes.

10. **(A)** A reportable trade that occurs on one CAT business day must be reported by 8:00 am, ET, on the next calendar day, or else FINRA considers it late. In this case, the business day is Friday, so the report must be made by Saturday at 8:00 am.

6. New-Issue Market

While market makers and equity traders work to provide liquidity in the secondary market, their capital markets counterparts work with issuers to bring new debt and equity securities to the market. This chapter will review new-issue activities and rules that apply when selling shares into the market for the first time, and how these influence and impact equity traders.

This section includes information on:

- Permitted and prohibited trading activities related to IPOs and secondary offerings
- Required notifications related to IPOs and secondary offerings
- Trading practices within safe harbors

6.1 Nasdaq Tiers

A company going public on Nasdaq will be listed on one of three Nasdaq tiers, based on its financial profile.

Top-tier Nasdaq companies are part of the Nasdaq Global Market. The top third of Nasdaq Global Market securities comprise the Nasdaq Global Select Market; this subset of Nasdaq has its own index and is positioned to attract greater global investment in Nasdaq securities.

The Nasdaq Capital Market targets smaller, less capitalized companies. Listing standards for the Nasdaq Capital Market are less stringent than those for the Nasdaq Global Market.

To initially list on any Nasdaq tier, an issuer must have a $4 bid price and at least three market makers quoting the security. Once listed, the continued listing requirements mandate that an issuer maintain a $1 bid price and be quoted by at least two market makers. Listing criteria differ between the three tiers with respect to the following financial and liquidity requirements:

- Revenue
- Pre-tax earnings
- Cash flow
- Market capitalization
- Total assets

- Stockholders' equity
- Round-lot shareholders (i.e., own at least 100 shares) and/or total shareholders
- Number of publicly held shares
- Market value of publicly held shares

It is not necessary for exam purposes to know the exact numerical criteria for each tier.

> ***Knopman Note:*** There is no required public seasoning period before an issuer can qualify for Nasdaq. This means that even a newly public company can be listed on Nasdaq.

6.2 New-Issue Practices

During the stock market frenzy of the dot-com era, many investors made fortunes participating in the IPOs of hot tech stocks. In some cases, the first-day profits when these companies went public were 100% or more. Troubled by unscrupulous IPO practices during this time, the SEC and FINRA began rulemaking and enacted FINRA Rule 5131 to address quid pro quo IPO allocations, spinning, and disincentives for flipping.

6.2.1 Quid Pro Quo Allocations

In a typical quid pro quo allocation, an investor is awarded shares of an IPO in return for steering commission-generating trading business to a broker-dealer. The rule also prohibits other types of compensation, including asset management fees, in return for IPO allocations.

FINRA Rule 5131 prohibits members and their associates from **offering or threatening** to withhold IPO allocations:

- As consideration or inducement for the receipt of compensation
- When the compensation is excessive in relation to the services provided by the member

Example

A client's account size is large enough to qualify for discounted commission rates. However, in return for the opportunity to participate in future IPOs, the client agrees to pay full commissions. This is a prohibited quid pro quo allocation.

Also prohibited under the rule are tie-in arrangements, which require investors to purchase additional shares in the secondary market in order to be awarded allocations in an IPO.

> ***Knopman Note:*** Tie-in arrangements are a form of market manipulation.

6.2.2 Spinning

Spinning is a practice in which underwriters allocate shares of IPOs to directors or executives of public companies to win their investment banking business.

Specifically, FINRA Rule 5131 prohibits the allocation of IPO shares to accounts in which officers and directors associated with public companies and **covered nonpublic companies** have a beneficial interest.

A covered nonpublic (i.e., private) company is one that meets any *one* of three conditions:

1. Income of at least $1 million in the last fiscal year, or in two of the last three fiscal years, and shareholders' equity of at least $15 million
2. Shareholders' equity of at least $30 million and a two-year operating history, or
3. Total assets and revenue of at least $75 million in the latest fiscal year, or in two of the last three fiscal years

These are all tests of company size. Covered nonpublic companies must be **large** to be covered. To determine that a private company is *not* covered, four pieces of information must be obtained and evaluated: income, shareholders' equity, total assets, and total revenue.

Example

ABC Company is nonpublic with a two-year operating history. It had income of $3 million in the last fiscal year and its shareholders' equity is $25 million. Total assets were $50 million and total revenues were $40 million in the last fiscal year. The company meets conditions one and three from above. Therefore, it is a covered company, and sales of a new issue to executives of ABC would be subject to this rule.

The rule also applies to anyone **materially supported** by an officer or director (defined as living in the same household or providing more than 25% of a person's income during the previous year).

Example

Nathan is a director of a public company. He is separated from his wife, living in a different household from her, but he provides 30% of her income. Therefore, she is materially supported. Nathan also lives in the same household with his son but provides no income. The son is still considered materially supported because they live together. However, he lives apart from his daughter and provides only 10% of her income. His daughter is not materially supported.

Neither of the two tests of materially supported involves family relationships—only **residence** and **income**.

The prohibition against spinning does not apply to any account in which the person in question owns less than 25% of the account.

Spinning is not prohibited to everyone. There are three important qualifiers that trigger the spinning rules for the account of an officer or a director of a public or covered nonpublic company. Any *one* of the following will trigger the prohibition on spinning:

- **Company**—Is the company currently an investment banking client, or has the member received compensation from the company for investment banking services in the past 12 months? If yes, spinning is prohibited.
- **Person**—Does the person responsible for making the member's IPO allocation decisions know, or have reason to know, that the member intends to provide, or expects to be retained by the company for, investment banking services within the next three months? If yes, spinning is prohibited.
- **Promise**—Is there an express or implied condition that the executive officer or director, on behalf of the company, will retain the member for future investment banking services? If yes, spinning is prohibited.

Example

Jack is a director of Anchor Shipping, a public company, and is also a client of XYZ Brokerage. Anchor is not, and has never been, an investment banking client of XYZ. There is no expectation or implication that XYZ will ever do investment banking business with Anchor. In this case, it appears that none of the three conditions have been met, and Jack's broker at XYZ can sell him IPO shares.

6.2.3 Flipping

Flipping is defined as an investor selling shares acquired in an IPO within 30 days of the offering date—also referred to as the effective date, which is the date the SEC permits sale.

> ***Knopman Note:*** The 30-day period is measured from the offering date regardless of when the purchaser was allocated or paid for the shares.

FINRA Rule 5131 prohibits members from recouping any commission or credit paid for selling IPO shares that are subsequently flipped by customers, unless the managing underwriter has assessed a penalty bid on the entire syndicate.

> ***Knopman Note:*** Spinning can be a violation. Flipping is not. Both concepts are important to know for the exam.

A **penalty bid** ensures that any recoupment of commissions is uniform and not directed at specific firms or brokers.

The prohibition applies to attempting to recoup commissions either directly or indirectly. An indirect method could be to deny a syndicate member shares in a **green shoe** option or the right to participate in future deals.

If a penalty bid is assessed, members must record and maintain documentation on any penalties or disincentives assessed on their associated persons. Penalty bids and a green shoe option will be discussed shortly, under Regulation M.

> ***Knopman Note:*** A new issue security cannot be bought on margin (with borrowed funds) for the first 30 days. During this timeframe, an investor must deposit up 100% of the purchase price. Additionally, newly issued shares (e.g., IPO or mutual fund shares) may not be loaned to customers for short sales for 30 days.

6.2.4 Lock-Up Agreements

A **lock-up agreement** is a binding contract between underwriters and insiders of the issuer that prohibits insiders from selling their shares for a specified period of time after the effective date of a new issue. The agreement, which must be disclosed in the registration statement and prospectus, is made as part of an underwriting commitment. It prevents a flood of insider shares hitting the market right after an IPO, depressing the share price. It can also mitigate any negative sentiment when huge quantities of insider share sales are reported. Here is typical language contained in a lock-up agreement:

> "Shareholders will not without the prior written consent of the Underwriter, during the period commencing on the date hereof and ending 180 days after the date of the prospectus relating to the Public Offering (the "Lock-Up Period"), directly or indirectly offer, pledge, assign, encumber, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of any shares of Common Stock or any securities directly or indirectly convertible into or exercisable or exchangeable for Common Stock owned either of record or beneficially by the undersigned on the date hereof or hereafter acquired."

A typical lock-up period lasts 180 days after the effective date. However, because lock-ups are not required by regulators, they can be longer or shorter as negotiated between parties. Also, different tiers of lock-up periods can be put in place for certain employees. The CEO and/or founders of the company are often subject to the longest lock-up periods. For example, when Facebook went public in May 2012, insiders were subject to one of five different lock-up periods, the longest of which extended for more than a year and only applied to the founder.

Typical lock-up agreements usually cover not only sales of common stock but also any transaction equivalent to a sale of common stock—for example, buying put options on the company's stock.

Lock-up agreements can be terminated at any time at the discretion of the underwriter. Since each shareholder enters into a separate lock-up agreement, underwriters may choose to terminate agreements of some shareholders and not others.

> ***Knopman Note:*** Insiders (e.g., CEO, CFO, and board members) will often agree to a post-IPO lock-up with their underwriter. Though they are not required, lock-ups typically last 180 days.

6.2.4.1 Issuer-Directed Shares

Any lock-up agreement or similar restriction on share transfers by officers or directors must also apply to issuer-directed shares. **Issuer-directed shares** are awarded through **directed share programs**, which permit an issuer to sell a portion of an IPO to investors of its choosing rather than through the underwriter. For example, an issuer may direct shares to valuable customers or to members of a rewards or loyalty program.

> ***Knopman Note:*** A company can allocate shares of an IPO to "friends and family" through a directed share program.

6.2.4.2 Expiration of Lock-Up Period

At least two business days before the release or waiver of any lock-up period, the book-running lead manager must:

1. Notify the issuer, and
2. Announce the share release or waiver to the public through a major news service

This remains the book-running lead manager's responsibility even if the lock-up extends well past settlement of the IPO.

6.2.5 IPO Share Allocation Reports

FINRA Rule 5131 imposes other reporting requirements on the book-running lead manager during and after an IPO. The lead manager is responsible for providing allocation reports both before pricing and post-effectiveness. These reports must be given to the pricing committee of the issuer or, if no pricing committee exists, the board of directors. They are made available only to the issuer, not to the public.

6.2.5.1 Before Pricing

Prior to pricing, the lead manager must prepare a report of indications of interest. The report must include the names of interested institutional investors and the number of shares indicated by each along with the aggregate demand by retail investors.

6.2.5.2 *After Pricing*

After the IPO settlement date, the lead manager must submit a report of the final allocation of shares to institutional investors, including the names of each purchaser, along with the total number of shares sold to retail investors.

6.2.6 Returned Shares

Under FINRA Rule 5131, any shares trading at a premium that are returned by a purchaser to a syndicate member after trading begins must be:

1. Used to offset any syndicate short position
2. Offered at the public offering price to unfilled customer orders using a random allocation methodology, or
3. Sold on the secondary market with the profits anonymously donated to charity

The shares cannot be placed into the firm's investment account.

6.2.7 Secondary Market Trading of IPOs

Typically, shares begin trading on the day after the offering is priced. In secondary market trading, the first transaction in an IPO must occur on the primary listing place (e.g., Nasdaq or NYSE). After the initial transaction, the shares can trade on other exchanges and OTC.

> ***Knopman Note:*** Here are a few key points regarding secondary market trading of new issues:
>
> In an IPO, a market maker can buy or sell stock in the secondary market after the first trade on the primary exchange. Once a new security is priced and the SEC grants effectiveness, the underwriters will sell the new issue at the public offering price (POP) to investors (e.g., at $11 per share). The initial transaction after the IPO (typically the next morning) will occur on Nasdaq or NYSE at a higher price (e.g., $16).
>
> A broker-dealer that is not part of an IPO can execute customer orders for the new shares on the effective date after the market opens. A market-making firm can register and immediately begin quoting an IPO after its opening IPO cross.

After a security's registration statement is effective, but before it begins trading on an exchange, orders to purchase the stock in the secondary market are permitted, but any buy orders for the stock are required to be a limit order. Not held and market (sometimes referred to as held) orders are not allowed. For example, a held sell order, a held limit buy order, and a held limit sell order would all be permitted pre-IPO (since they are either sell orders or buy orders that specify a price). A held buy order is NOT allowed, because there is no price. After the initial transaction occurs on the primary exchange, then all types of orders are permitted.

Example

Acme, Inc., has its IPO and lists its shares on the NYSE. Acme shares can trade on Nasdaq and other exchanges after the first trade on the NYSE.

6.3 Regulation M

A fundamental goal of federal securities law is the prevention of manipulation, which undermines fairness and independence in the markets. **Regulation M** was enacted to prevent manipulative conduct by persons with an interest in the outcome of an offering, including underwriters, issuers, and selling security holders. Its overall objective is to prohibit activities that could artificially influence the market for a new issue.

Regulation M includes a definitional introduction, Rule 100, and five conduct rules, Rules 101–105. The key takeaway from Rule 100 is that Regulation M applies to both the security being sold, the **subject** security, and the security into which the subject security can be converted, the **reference** security. Together, the subject security and the reference security are defined as the **covered securities**.

Example

If an issuer is selling convertible bonds, both the convertible bonds and the issuer's common stock are covered by the provisions of Regulation M.

The five subsequent conduct rules are:

- **Rule 101**: Activities by underwriters or other persons who are participating in a distribution
- **Rule 102**: Activities by the issuer or selling shareholders
- **Rule 103**: Nasdaq passive market-making
- **Rule 104**: Stabilization
- **Rule 105**: Short-selling in connection with a public offering

It is of greater importance to know the content of the rules rather than the actual rule numbers.

Knopman Note: Regulation M prevents manipulation of a securities offering, and prohibits sales and trading activities that could artificially influence the market for a new issue.

6.3.1 Rule 101—Activities by a Distribution Participant

In general terms, Rule 101 prohibits a distribution participant from attempting to bid for or purchase, or attempting to induce any other person to bid for or purchase, a covered security during the applicable restricted period.

Distribution participants include underwriters, prospective underwriters, broker-dealers, and other persons who have agreed to participate or who are participating in a distribution.

The period when the restrictions apply is defined by a two-pronged test based on the **average daily trading volume (ADTV)** of the securities and the **public float** value of an issuer's outstanding common stock. There are three categories of securities and applicable restricted periods:

Type of Reg M stock	Trading Thresholds	Beginning of Restricted Period	End of Restricted Period	Timing of Notification to FINRA Regarding Restricted Period	Notes
Five-day stock	None	Five days before pricing	Completion of the distribution	Six days before pricing	For securities with a restricted period, FINRA must be notified one day prior to the beginning of the restricted period. The market maker must also submit trading data to show why the security has a one-day restricted period, if that is the case.
One-day stock	Greater than $100,000 ADTV *and* $25MM public float	One day before pricing	Completion of the distribution	Two days before pricing	
Actively traded securities	Greater than $1MM ADTV *and* $150MM public float	No restricted period	No restricted period	One day after pricing	For actively traded securities, FINRA must be notified one day after the pricing date. The market maker must also submit trading data to show that the security is actively traded.

Knopman Note: Make sure to review the restricted periods under Regulation M.

Knopman Note: If securities are being distributed in connection with a merger, an acquisition, or an exchange offer, the restricted period begins on the first day proxies or offering materials are sent to security holders and ends upon the completion of the distribution.

Rule 101 permits certain activities by distribution participants during the restricted period, including:

- The publication of research or recommendations, provided the report is not to initiate coverage
- Odd-lot transactions
- Exercises of options, warrants, rights, or conversions into the security
- Unsolicited transactions, where the customer initiates the order
- Basket transactions that include a basket of 20 or more securities in which the covered security is not more than 5% of the basket value
- Certain de minimis transactions (defined as less than 2% of the ADTV of the security)
- Rule 144A transactions with qualified institutional buyers and non-US buyers

Knopman Note: During the Regulation M restricted period, distribution participants (i.e., underwriters) can also choose to be passive market makers (discussed below) or can seek an excused withdrawal.

Certain securities are not subject to the provisions of Rule 101:

- Investment-grade nonconvertible securities and asset-backed securities, and
- Face-amount certificates or securities issued by an open-end management investment company or unit trust

6.3.2 Rule 102—Activities by Issuers and Selling Security Holders

Rule 102 is similar to Rule 101, but it addresses activities of issuers, selling security holders, and their affiliated purchasers during a distribution of securities. An **affiliated purchaser** is defined as anyone acting in concert with issuers and selling security holders.

These persons must also refrain from bidding for, purchasing for, or attempting to induce any person to bid for or purchase a covered security during the applicable restricted period, unless an exception permits the activity.

> ***Knopman Note:*** Reg M Rule 102 limits how the issuer, selling security holders, and insiders can sell their stock during a follow-on offering.

6.3.2.1 Notification Requirements Under Rules 101 and 102

The syndicate manager is responsible for providing written notice to FINRA of information regarding compliance with Regulation M Rules 101 and 102. The table below summarizes the events that require FINRA notification.

Notification Event	Date Required
Length of restricted period and date it will begin	No later than the business day before the first day of the restricted period
Pricing of the distribution, the security and symbol, number of shares offered, and offering price	No later than the close of business on the first business day following the pricing of the distribution
Cancellation or postponement of any distribution for which prior notification had been made	Immediately

The lead manager, or a third-party agent, electronically files these notifications with FINRA on behalf of all syndicate members. The lead manager's negligence in filing, however, does not reduce the responsibility of other members for failure to provide notification. Syndicate participants should request written copies of all required notification forms from the lead manager.

6.3.3 Rule 103—Nasdaq Passive Market-Making

Rule 103 allows broker-dealers to engage in passive market-making in Nasdaq securities during the restricted period.

> ***Knopman Note:*** Passive market making must be done with a primary MPID only, never a supplemental MPID.

6.3.3.1 Highest Bid

A passive market maker may not bid on the covered securities at a price exceeding the highest independent bid. The **highest independent bid** is the highest bid by a market maker that is not also an underwriter.

Example

The highest independent bid in a security is $24 per share. A passive market maker can bid $24 per share (or less) but cannot bid higher than $24 per share.

6.3.3.2 Net Purchase Limitation

On each day of the restricted period, a passive market maker's net purchases cannot exceed the greater of 30% of the market maker's daily trading volume (DTV) limit or 200 shares. The DTV limit is based off the market maker's average daily trading volume in the security during the two full calendar months immediately preceding the filing of the registration statement.

Example

A market maker's average daily trading volume in a covered security is 100,000 shares. Therefore, the market maker's net purchases as a passive market maker may not exceed 30,000 shares. If the market maker has bought 80,000 shares on a given day and sold 65,000 shares, it is a net purchaser of 15,000 shares. Therefore, it can continue its passive market-making activities.

Note that the market maker may buy more than 30,000 shares on any day but the net total, or purchases minus sales, may not exceed 30,000.

A market maker's displayed bid size cannot exceed the remaining shares available until the firm reaches its net purchase limitation. However, if the remaining shares under the limit equal less than one round lot, the market maker can still bid for one round lot.

Example

A passive market maker is bidding 32.75 at a time when the highest independent bid is also 32.75. The market maker has a daily net purchase limitation of 400 shares, of which it has been a net purchaser of 100 shares. The market maker's bid size cannot exceed three round lots (300 shares).

Example

A passive market maker is bidding 32.75 at a time when the highest independent bid is also 32.75. The market maker has a daily net purchase limitation of 400 shares, of which it has been a net purchaser of 350 shares. The market maker can still show a bid size for one round lot (100 shares), even though its purchasing capacity is now only 50 shares.

6.3.3.3 Adjusting Bids

If the highest independent bid increases, the passive market maker can immediately increase its bid to equal the new bid.

The rules are slightly more complex when the highest independent bid falls. If all independent bids are reduced to a price below the passive market maker's bid, the market maker must promptly, but not immediately, adjust its bid to a price not higher than the highest independent bid.

Specifically, the market maker may purchase up to two times the minimum quote size in the security, or the remaining amount of its net purchase limitation, before lowering its bid. The minimum quote size is typically 100 shares.

Example

At 10:00 am, a passive market maker is currently bidding 43.75 for 300 shares, a bid equal to the highest independent bid. Furthermore, the firm's net purchase limitation is 800 shares, and it has been a net purchaser of 400 shares so far today.

At 10:02 am, the best independent bid drops to 43.70. The passive market maker can purchase two times the minimum quote size, or 200 shares, at its current bid of 43.75 and then must drop its bid to 43.70.

Example

At 10:00 am, a passive market maker is currently bidding 43.75 for 300 shares, a bid equal to the highest independent bid. Furthermore, the firm's net purchase limitation is 800 shares, and it has been a net purchaser of 750 shares so far today. Therefore, it can purchase 50 more shares before reaching its net purchase limit for the day.

At 10:02 am, the best independent bid drops to 43.70. The passive market maker can purchase up to 50 shares at 43.75 and then must withdraw from the market for the rest of the day. In this case, purchasing two times the minimum quote size is not permitted because, once the passive market maker purchases 50 shares, it will hit its limit for the day.

In all cases, a passive market maker can purchase shares as part of a single customer order that exceeds the net purchase limitation, provided that it withdraws from the market for the rest of the day.

> ***Knopman Note:*** Passive market-making means a market maker can bid no higher than the best independent bid in a security. It can increase its bid when the best independent bid increases and must reduce its bid (after purchasing up to two times the minimum quotation size, if desired) when the best independent bid falls. Once its net purchases exceed 30% of the ADTV, it must withdraw from the market for the rest of the day.
>
> Candidates should be familiar with the pricing rules regarding passive market-making, along with the limit to its daily trading activity and when a passive market maker must withdraw its bid.

6.3.4 Rule 104—Stabilization and Penalty Bids

Stabilization is one of the functions that a syndicate performs during an offering, and it must be managed carefully to stay within regulatory guidelines.

Stabilization allows an underwriter to bid on a new issue in the secondary market to prevent a decline in price. The firm that stabilizes on behalf of the syndicate is referred to as the **stabilization agent**. This is usually the syndicate manager. A stabilization bid can last indefinitely—no rule limits its duration.

Stabilizing activities must always be anticipated, planned, and announced in advance. They cannot be done as a knee-jerk response to a falling IPO price.

When an underwriter stabilizes a new issue, restrictions apply to the price of the stabilizing bid. The first rule is that a stabilization bid must always be at or below the public offering price. For example, if the public offering price is \$30, a stabilizing bid may never be higher than \$30.

The second pricing requirement provides that the stabilizing bid be entered at a specific price depending on the current bid, ask, and last independent transaction:

- If the current best asked price is greater than or equal to the last independent transaction price (i.e., last sale), stabilization can occur at that last independent transaction price.
- If the current best asked price is less than the last sale, stabilization can occur at the highest current independent bid.

This chart will help explain how and where stabilization can occur:

Scenario 1	Scenario 2
Current best ask ≥ last independent transaction price (i.e., last sale)	Current best ask < last independent transaction price (i.e., last sale)
Stabilize at last independent transaction price	Stabilize at highest current independent bid
Examples	
POP: \$30 Last independent transaction: \$27.50 Current bid–ask: \$27.10–\$27.90 **Stabilize at \$27.50 (last independent transaction)** because the current ask is greater than or equal to the last independent transaction.	POP: \$30 Last independent transaction: \$27.50 Current bid–ask: \$27.10–\$27.30 **Stabilize at \$27.10 (highest current independent bid)** because the current ask is less than the last independent transaction.

The **principal market** is defined under Rule 100 as the market with the largest reported trading volume for that security during the prior 12 calendar months. If such trading data is not available, the stabilization bid will be entered in the market where the issuer elected to have its primary listing (e.g., NYSE or Nasdaq).

Stabilization bids are heavily regulated and must comply with all of the following requirements:

- The stabilization agent must give priority to an independent bid at the same price, regardless of its size.
- Only one stabilization bid can be entered at any one time.
- The stabilization agent cannot bid on the stock in addition to its stabilization bid.
- The stabilization agent must give prior regulatory notice to the SEC.

Knopman Note: Here are some key items regarding stabilization bids:

Q: Which MPID must a market maker use for stabilization?

A: A firm must use its primary MPID, not a supplemental MPID for stabilization.

Q: How many underwriters can simultaneously stabilize an IPO?

A: There may only be one stabilization bid at any time. The stabilization agent is typically the managing underwriter.

Q: How long can a stabilization bid remain available in the market?

A: No regulatory rule covers the time limit of a stabilization bid, so in theory, it can be outstanding indefinitely.

Q: Can a market maker initiate stabilization in a security when no other market makers are actively quoting the stock?

A: It is permissible to initiate stabilization in a security where no independent market makers are quoting the stock. If no bona fide market for the covered security exists (i.e., no independent bids), the initiating stabilization price must be equal to or less than the offering price.

Q: Can stabilization be initiated when the market is closed?

A: Yes. If an underwriter initiates stabilization when the market is closed, the maximum stabilization bid is the prior closing price. For example, an IPO opens at $40 per share and closes that day at $39.45. The maximum price a stabilizing bid may be entered for the next day is $39.45.

6.3.4.1 Penalty Bids

A penalty bid is imposed (usually by the lead manager) against a syndicate member when newly issued securities are flipped by the investor and sold into the stabilizing bid. Any **selling concessions** granted to the member are forfeited and the selling broker-dealer involved in the trade is not paid. Penalty bids are designed to discourage the allocation of shares to "fast-buck speculators." They also reduce selling pressure during the first days of after-market trading.

Rule 104 requires any person making a penalty bid to provide prior notice to regulators of the principal market in which the penalty bid is imposed.

Penalty bids must be anticipated and announced to syndicate members prior to the effective date. They cannot be imposed retroactively.

6.3.4.2 Recordkeeping Requirements for Stabilization and Penalty Bids

SEC Rule 17a-2 defines the recordkeeping requirements for syndicate group members who engage in stabilizing activities or penalty bids. The following records must be maintained for at least three years in total, and for at least the first two years in an easily accessible place:

- The name and class of security stabilized or subject to a penalty bid
- The price, date, and time at which each stabilizing purchase was entered, and whether any penalties were assessed
- The names and addresses of members of the syndicate or selling group
- The commitments of each member in the group
- The dates when any penalty bid was in effect

It is the responsibility of each member of the syndicate or selling group entering a stabilizing bid to promptly furnish the date and time when the first stabilizing purchase was made and the date and time at which stabilization was terminated.

The rule requires that all members of the syndicate be informed of the beginning and end of any stabilization efforts.

6.3.4.3 Syndicate Covering Transactions

One drawback of stabilization under Rule 104 is that the underwriter must notify the SEC of such activity. The SEC, in turn, disseminates the information to the public. This creates a negative perception of the deal and can intensify selling pressure in the secondary market. As a result, many underwriters elect to engage in syndicate covering transactions instead of **pure stabilization**.

In a typical new issue, the underwriter will sell more shares than have been registered. In fact, IPOs are almost always oversold by 15%, the maximum amount of the **green shoe clause**. The green shoe clause allows the underwriter, at its discretion, to increase the number of issued shares by 15%. Alternatively, the underwriter can cover the oversold shares by engaging in a syndicate covering transaction.

> ***Knopman Note:*** The green shoe clause in an underwriting agreement permits the underwriter to increase the size of the deal by up to 15% to meet investor demand.

A **syndicate covering transaction** is a bid made by the underwriting syndicate to reduce the short position created in connection with the oversold offering. The underwriter purchases shares in the secondary market to make delivery on the undelivered portion of the new issue. Underwriters generally prefer a syndicate covering transaction over a Rule 104 stabilization bid because there are no price restrictions and there is no disclosure requirement to the public. As a result, these transactions allow the underwriter to support the price without creating the perception that the deal is not being well received.

6.3.4.4 OTC Equities—Penalty Bids and Syndicate Covering Transactions

FINRA Rule 5190(e) requires members who impose penalty bids or engage in syndicate covering transactions involving OTC equities to provide two types of written notice to FINRA:

- **Prior notice**—An underwriter must give written notice of its intent to impose a penalty bid or engage in a syndicate covering transaction. The notice must include the security's ID, the security's symbol, and the date(s) such activity will occur.
- **Confirmation notice**—An underwriter must give written confirmation of any imposed penalty bid or syndicate covering transaction within one business day of the completion of this activity. The notice must include the security's ID, the security's symbol, total shares involved, and the date(s) of activity.

Neither notice is made public. They are for FINRA's use in monitoring compliance with Regulation M.

> ***Knopman Note:***
>
> *Q:* Are underwriters required to notify FINRA both before and after engaging in a penalty bid or syndicate covering transaction?
>
> *A:* Yes. A member imposing a penalty bid or syndicate covering transaction in an OTC equity security (e.g., an IPO) must provide FINRA with:
>
> - Advance written notice of the penalty bid or syndicate covering transaction, and
> - Written confirmation of the penalty bid or syndicate covering transaction, within one business day of completion of such activity, including identification of the security, the total number of shares, and the dates of such activity

6.3.5 Rule 105—Short-Selling in Connection with a Public Offering

Rule 105 prohibits *anyone* from purchasing securities in a public offering if that person sold the same securities short within the five-business-day period preceding the pricing of the offered securities. The purpose of the rule is to prevent an investor from shorting a significant amount of stock just prior to the pricing of a follow-on offering and subsequently closing that short position by repurchasing the stock at the now depressed offer price. To do so is manipulative and a violation.

> ***Knopman Note:*** Rule 105 applies to firm commitment equity follow-on offerings. It does not apply to best efforts equity offerings or initial public offerings (IPOs).

Regulation M Rule 105 restrictions on short sales and purchases during the restricted period apply to all investors. The rule does not apply to short sales executed more than five business days before the pricing of the new issue.

Example

BHS Hedge Fund sells short 12,000 shares of ABC common stock on Friday, March 13. On Monday, March 16, ABC Corp prices a follow-on offering. BHS is prohibited from investing in the follow-on offering because it established a short position within five business days prior to pricing of the new issue.

Example

BHS Hedge Fund sells short 12,000 shares of ABC common stock on Friday, March 13. On Monday, March 23, ABC Corp prices a follow-on offering. BHS is permitted to invest in the new issue since the short position was established more than five business days prior to pricing.

The five-day period is shorter if the registration statement for the new issue is filed less than five business days prior to pricing. In that case, Rule 105 applies on the date the registration statement is filed and ends when the deal is priced.

Knopman Note: An exception to Regulation M's Rule 105 allows bona fide investors who meet certain conditions to short sell within the five day restricted period and still invest in the newly offered shares as long as the investor closes their short position in the market prior. For example, if an investor sells short 1,000 shares of XYZ on Monday, but then covers their short position on Tuesday, they would be permitted to still invest in the follow-on offering occurring on Wednesday. To use the exception, the latest a short sale trade can occur is 30 minutes prior to the close on the business day prior to the pricing.

6.3.6 FINRA Rules Regarding Regulation M

FINRA Rule 6435 requires distribution participants (i.e., underwriters) to withdraw from market-making activities in OTC equity securities during the applicable restricted period (one or five days) under Rule 101 of Regulation M.

Furthermore, the rule prohibits underwriters from entering stabilizing bids for OTC equity securities under Rule 104.

6.4 Tender Offers

A **tender offer** is a broad solicitation made by one party (the bidder or acquirer) to purchase at least 5% of a public company's stock, though it is often more, up to 100% of the company. Tender offers usually are made contingent on the acquirer's ability to convince a specified percentage of shareholders to sell shares at the fixed price. Since the offer usually is made at or above the market price for shares, shareholders have some incentive to accept the offer. However, the market price of securities often rises when tender offers are announced, or even rumored.

For example, an investor might offer to purchase up to 20% of a company's outstanding shares for $35.00, even though the stock is only trading for $32.00. The offer must remain open for at least 20 business days—this gives shareholders time to decide whether they want to accept the terms. If the purchaser decides to change the number of shares or price, shareholders must be given at least 10 business days from the change to decide whether to act.

During the tender period, and for at least 10 business days after termination, the purchaser cannot acquire stock outside the tender.

6.4.1 Subject Company Response

The subject company of the tender must release a statement no later than 10 business days after the tender offer, stating whether it recommends acceptance or rejection of the bid, expresses no opinion (remains neutral), or is unable to take a position. The recommendation is filed on a Schedule 14D-9.

The recommendation is prepared by the company's board of directors and helps shareholders decide whether or not to tender their shares. The recommendation is not binding; it is merely the opinion of the board.

6.4.2 Short Tendering

Shareholders may not tender shares during a tender offer unless they have a net long position equal to or greater than the amount they wish to sell, including any "equivalent securities." Any equivalent securities must be convertible into the tendered securities and delivered upon acceptance of the tender.

Example

An investor tenders 5,000 shares. At the time, the investor has 3,000 shares long and another 2,000 shares that can be obtained through a convertible bond. The bond can be converted into the tendered securities and delivered upon acceptance of the tender so that the requirement is satisfied.

The same logic applies to call options: investors must first exercise the options and then tender the shares.

Example

If an investor with 1,200 shares also holds a short position (e.g., 500 short shares), the number of shares that can be tendered must be reduced by the short amount; thus, the investor can only tender 700 shares.

6.4.3 Dutch Auction Tender Offer

In a conventional tender offer, an investor states a price at which it will purchase any shares tendered. In an alternative tendering method called a **Dutch auction**, the purchaser (or issuer, if a buyback) states a share price range within which tenders will be accepted. The purchaser also states an amount (or range) of shares it is willing to acquire, or in some cases a maximum dollar amount. Then, each shareholder who wishes to tender shares states an acceptable price within the defined range. The lowest bid that will allow the company to purchase the stated number of shares is called the **clearing bid** or **purchase price**. All accepted tenders are paid this share price.

If more tenders are made below the purchase price than the company can accept, shares are accepted pro rata. This means that the purchaser will accept the same percentage of tendered shares from each shareholder who has chosen to sell.

> ***Knopman Note:*** In a Dutch auction tender offer, all accepted shares receive the clearing price.

Example

A company tenders to buy up to 500,000 shares within a price range of $15.00 to $17.00 per share. The table below shows the shares offered by shareholders into the tender.

Price	Shares Tendered	Total Shares at That Price or Below
15.25	85,000	85,000
15.50	95,000	180,000
15.80	80,000	260,000
16.10	150,000	410,000
16.35	90,000	500,000
16.50	110,000	Not Accepted
16.60	85,000	Not Accepted
16.65	100,000	Not Accepted

Clearing Price
All tendered shares below this price are accepted and are paid the clearing price

Based on the shares tendered, the clearing bid is $16.35, because this is the lowest price at which the issuer can repurchase the full 500,000 shares it is seeking. Those who tendered their shares at $16.35 or below will sell into the tender at $16.35, regardless of their actual tender price. Any shares offered at a price higher than $16.35 are rejected.

If 100,000 shares had been tendered at $16.35, that price would have remained the clearing price, but all accepted shares would have been taken pro rata.

Knopman Note: If a Dutch auction is over-subscribed, shareholders that tender at or below the clearing price will tender their shares on a pro-rata basis.

Example

An investor tenders 10,000 shares at $15.00 per share. The clearing price is $16.50 on a 90% pro-rata basis. The investor would therefore tender 9,000 shares (90% of the 10,000) at the $16.50 clearing price.

6.5 Share Buybacks

In 1982, the SEC adopted Rule 10b-18 to create a safe harbor for issuers purchasing their own common stock in the open market (a stock **buyback**).

The **safe harbor** does not offer hard-and-fast rules. Rather, it offers a set of guidelines published by the SEC. If an issuer decides to buy back its stock, compliance with Rule 10b-18 is voluntary. By following the safe harbor, the issuer can be comfortable that it has not violated the manipulative and deceptive practices provisions of the '34 Act. Compliance will generally invite less regulatory scrutiny.

Share buybacks are not presumed to be manipulative or deceptive merely because the safe harbor is not obtained. The facts and circumstances of each buyback transaction are considered. Furthermore, SEC disclosures are required in all share buybacks, whether or not the safe harbor is obtained.

6.5.1 Safe Harbor Provisions of Rule 10b-18

The 10b-18 safe harbor includes four types of conditions for these purchases:

6.5.1.1 Manner of Purchases

For purchases that are solicited by the issuer, the issuer must use one broker-dealer to buy back its common stock each day. The selected broker-dealer, however, may engage in appropriate and customary arrangements with other broker-dealers to execute orders.

6.5.1.2 Timing of Purchases

Buybacks must be made at times other than the opening of trading or the last half-hour of trading. The SEC believes market activity at these times is a significant indicator of trading direction and demand, and of a stock's market value. For stocks with an average daily trading volume (ADTV) of at least $1 million and a public float of at least $150 million (i.e., actively traded securities, as defined under Regulation M), the end-of-day restriction applies only to the last 10 minutes of trading.

Knopman Note: Here are some key items to know regarding Rule 10b-18:

Q: What time of day is excluded from the safe harbor?

A: Rule 10b-18 purchases must not be:

- The opening trade
- Made during the last 10 minutes of trading for actively traded securities, or
- Made during the last 30 minutes of trading for all other securities

- ***Example:*** A broker-dealer is conducting a share buyback for a client. It can begin purchasing shares within the safe harbor after the opening trade, e.g., at 9:30:01.

Q: When can a broker-dealer execute a share buyback on behalf of an issuer?

A: A broker-dealer can legally repurchase shares on behalf of an issuer at any time. However, if the safe harbor is not available, as indicated by the times above, the broker-dealer must advise the issuer as such.

6.5.1.3 Price of Purchases

The broker-dealer may not purchase shares on behalf of the buyback client at a price greater than 1) the highest independent published bid or 2) the last independent transaction price.

Example

The highest independent bid in a security is $24 per share; the last independent transaction was at $24.03. A broker-dealer purchasing shares for a share buyback program may do so at $24.03.

The highest independent bid in a security is $16 per share; the last independent transaction was at $15.93. A broker-dealer purchasing shares for a share buyback program may do so at $16.

6.5.1.4 Volume of Purchases

The buyback program allows the issuer to repurchase up to 25% of the average daily trading volume (ADTV) of its shares, with the ADTV determined over a four-week period. One block purchase per week is permitted outside of the 25% limit, provided that the issuer makes no other repurchases on the same day.

The safe harbor is not available unless *all four* conditions are met.

6.5.2 Reporting Share Repurchases

A public company must disclose its repurchase transactions in its 10-Ks and 10-Qs, and make additional public reports on a monthly basis. Reports must include the following information:

- Total number of shares purchased
- Average price paid per share
- Total shares repurchased as part of a publicly announced plan or program
- Maximum shares (or dollar amount, if applicable) that may yet be repurchased under the announced program

A standard table format must be used, in which each bullet above is a column and each month is a row. For each quarterly report, three months are reported, along with totals (for each column) for all three. A sample table is below, as reported by Apple for the quarter ending December 31, 2013.

Q4 Share Repurchases	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Program	Dollar Value of Shares that May Yet Be Repurchased
9/29/13 to 11/2/13	2,101	$509.02	2,101	
11/3/13 to 11/30/13	6,485	$522.78	6,485	
12/1/13 to 12/28/13	964	$560.04	964	
Total	**9,550**		**9,550**	**$32,050,000**

These disclosures must be included in quarterly periodic reports for any quarter in which any share repurchases have occurred, whether or not a company intends to qualify for the 10b-18 safe harbor.

In addition to the table, a footnote disclosure of the terms of publicly announced share repurchase plans is required. It must include:

- The date the plan was first announced and dates of any program modification or extensions
- The dollar value or share amount of the program approved by the company's board of directors
- The program's expiration date
- Description of programs that expired or were terminated during the period

Knopman Note: In addition to repurchase transactions, public companies are required to disclose a wide range of quantitative and qualitative information on SEC filings. Regulation SK governs the release of non-financial information while Regulation SX governs the release of financial information.

6.5.3 The Rule 10b-18 Merger Exclusion

Under the merger exclusion of Rule 10b-18, separate rules govern share repurchases while a merger is pending, for both the acquiring and target companies. The safe harbor generally is not available for share repurchases from the date a merger or acquisition is announced until the earlier of:

- The date the transaction closes, or
- The date shareholders vote on the transaction

The SEC created this exclusion to reduce the potential for market manipulation during a merger or an acquisition. However, there are two exceptions to the merger exclusion—i.e., situations in which the acquiring or target company may repurchase shares during this designated period. The safe harbor is available during the merger period for all-cash transactions with no valuation period. For this purpose, **no valuation period** means any period in which the market price of a security is not a factor in determining the consideration paid to shareholders.

Under this exception, companies can repurchase shares in volumes that do not exceed the lesser of:

1. 25% of the four-week ADTV, or
2. The company's daily average share repurchases under Rule 10b-18 for the preceding three months

Example

ABC Company announces a merger on March 10 and schedules a vote of shareholders on May 15. Its four-week ADTV is 500,000 shares. During the preceding three months, it has made no share repurchases under 10b-18. It may not repurchase any shares during the merger exclusion period because the lesser of 25% of 500,000 shares (ADTV) and shares repurchased under 10b-18 is zero.

6.6 Rule 144A

Rule 144A of the Securities Act of 1933 makes it easier for companies, both domestic and international, to raise money in US capital markets. It permits companies to buy and sell unregistered securities through broker-dealers or among themselves, as long as they're classified as **qualified institutional buyers (QIBs)**. To be a QIB, the institution must control a securities portfolio of at least $100 million. Broker-dealers with a securities portfolio of at least $10 million are also considered QIBs.

Rule 144A requires that the seller reasonably believe that the buyer is a QIB. The seller can determine whether the buyer is a QIB by examining its financial statements or getting an attestation or verification from the buyer's CFO or another executive officer of the buyer. Broker-dealers facilitating Rule 144A transactions will assist sellers in confirming purchasers' QIB statuses.

Since its adoption in 1990, Rule 144A has greatly increased the liquidity of unregistered securities by enabling a more liquid and efficient institutional resale market. It has also made US capital markets accessible to foreign companies.

Two common uses of Rule 144A are the issuance of high-yield debt and pre-IPO shares. Often, investors in Rule 144A securities are given the opportunity at some point in the future to sell their securities to the public. This is referred to as **piggyback registration rights**. Under piggyback registration rights, when an issuer proposes to register its securities, the investor can require the issuer to include the investor's securities in the prospectus, at the issuer's expense. In this scenario, the underwriter would be selling the investor's Rule 144A securities in addition to the issuer's own securities. The QIB's shares "piggyback" on the issuer's registration statement.

> ***Knopman Note:*** QIBs are institutions with a discretionary portfolio of at least $100 million or broker-dealers with a discretionary portfolio of at least $10 million.

6.7 Rule 144

Rule 144 allows securities that are unregistered, or otherwise restricted from resale, to be sold. It defines both **restricted** and **control securities**, and provides direction on how to have a restrictive legend removed so that securities can be resold.

6.7.1 Restricted Securities

Investors typically receive **restricted stock** through private placements, overseas offerings, and employee stock benefit plans; as compensation for professional services; or in exchange for providing seed money or start-up capital to a company. In fact, any stock that has not been SEC registered is restricted stock.

When a purchaser acquires restricted stock, the shares are typically accompanied by a stock certificate bearing a **legend**. The legend indicates that the securities may not be resold in the marketplace unless they are registered with the SEC or are exempt from registration.

Restricted stock is subject to a holding period before it can be sold under Rule 144. The holding period is a minimum of six months for securities issued by companies subject to reporting requirements of the Securities Exchange Act of 1934, and at least one year for issuers who are not subject to these reporting requirements or who are not filers in good standing with the SEC.

Also, adequate current information about the issuer must exist before the sale can be made. For example, securities of a private company that does not file financials would not be eligible for sale under Rule 144.

These holding periods are not affected by hedges the investor may put in place to limit risk. For example, an investor who acquires restricted shares on January 1 can buy put options to limit downside in those shares and still sell the securities under Rule 144 on July 1, six months later.

6.7.2 Control Securities

Control securities are those held by an affiliate of the issuing company. An affiliate, also referred to as a **corporate insider**, is commonly defined as:

- An officer of the company (e.g., CEO or CFO)
- A member of the board of directors, or
- An individual owning more than 10% of the voting shares of the company

Any insider seeking to sell control stock—whether registered or restricted (unregistered)—is limited to volume restrictions. Every 90 days, insiders can sell the greater of:

- 1% of the outstanding shares of the same class being sold, or
- The average reported weekly trading volume during the four weeks preceding the sale

Trading volume is only measured for securities traded on NYSE or Nasdaq. Securities traded on the OTC Markets are only subject to the 1% of outstanding shares limit.

If the securities being sold by the affiliate are also restricted, the applicable holding period of six months or one year also applies.

Control stock is not stamped with a restrictive legend if the shares were purchased in the open market.

A limit is imposed on the number of shares that an affiliate may sell during any three-month period. This is discussed below.

6.7.2.1 Filing Form 144

Affiliates must file a notice with the SEC on **Form 144** if the sale involves more than 5,000 shares or the aggregate dollar amount is greater than $50,000 in any three-month period. The sale must take place within three months of filing the form. If the securities have not been sold by the end of the three-month period, an amended notice must be filed.

Form 144 must be filed on or prior to the day of first sale. Here is another way to think about it: the 90-day period to sell shares begins the day Form 144 is filed.

6.7.3 Removal of the Legend

Even if other conditions of Rule 144 have been met, restricted stock cannot be sold to the public until the legend has been removed from the certificate. Only a transfer agent can remove a restrictive legend, though the transfer agent will remove the legend only if the issuer has given consent. This is usually in the form of an opinion letter from the issuer's counsel stating that the sale is consistent with the provisions of Rule 144.

Knopman Note: Under Rule 144, brokers can only sell restricted stock on an unsolicited basis.

6.7.4 Rule 144 Summary

The table below summarizes the resale requirements under Rule 144.

	Sale of Restricted Securities by Affiliates	Sale of Restricted Securities by Non-Affiliates	Sale of Registered Securities by Affiliates
Holding Period	Six months or one year	Six months or one year	None
Legend	Must be removed prior to sale	Must be removed prior to sale	No legend
Volume Restrictions	Apply to sale	Do not apply	Apply to sale

Knopman Note: Summary of Rule 144:

- Control stock is subject to a volume restriction. This amount can be calculated and then sold once every 90 days.
- Control stock is not subject to a six-month holding period.
- Restricted stock is subject to a six-month holding period, but not a volume restriction.

6.8 New Issues in Business Combinations

In business combinations that are submitted to a shareholder vote (e.g., a merger), Rule 145 requires that the offer be registered under the Securities Act of 1933. The premise of Rule 145 is that investors are essentially being offered a new security in the joint company. Thus, they are entitled to the same disclosures and protections as in a new securities offering, including receiving a statutory prospectus. Three types of transactions are covered:

- **Reclassifications**—One security is substituted for another in a transaction other than a stock split, reverse split, or change in par value.
- **Mergers and consolidations**—Securities of one company are exchanged for those of another, usually to facilitate a combination of the

two issuers, for reasons other than a change in the issuer's location of domicile.

- **Transfers of assets**—Securities are issued to investors as compensation for assets transferred from one company to another in a transaction other than a full dissolution or pro-rata distribution to all shareholders.

Exchange offers, in which a company exchanges new debt or equity securities for its outstanding securities, often as part of a restructuring, may qualify for an exemption from registration under the '33 Act. To qualify, the old and new securities must have the same issuer, with no additional consideration paid by the securities holder. The offering must be limited to existing securities holders, with no remuneration paid for the exchange solicitation.

Unit Exam

1. An underwriter working on an IPO is permitted to engage in all of the following activities except:

   A. flipping shares.
   B. tie-in arrangements.
   C. allocating shares to friends and family of the issuer.
   D. sell more shares in the offering than registered by the issuer.

2. DEF Company will be going public on Monday and its primary listing place will be the NYSE. DEF Company can begin trading away from the NYSE:

   A. at 9:30 am on Monday.
   B. at 11:00 am on Monday.
   C. at 9:30 am on Tuesday.
   D. once the initial transaction occurs on the NYSE.

3. A company tenders to buy up to 100,000 shares within a price range of $16.00 to $18.00 per share. 25,000 shares are tendered at $16.25; 50,000 shares are tendered at $16.50; 25,000 shares are tendered at $17.00; 20,000 shares are tendered at $17.10; and 25,000 shares are tendered at $17.50. What is the clearing price?

   A. $16.25
   B. $16.50
   C. $17.00
   D. $17.10

4. Which of the following customer orders for XYZ stock is prohibited prior to the IPO beginning to trade on an exchange?

   A. Market order to buy 100 shares of XYZ
   B. Market order to sell 100 shares of XYZ
   C. Buy 100 shares of XYZ at $30
   D. Sell 100 shares of XYZ at $40

5. If a lock-up agreement is expiring on Friday, April 9, by what day must the issuer and public be notified of that fact?

   A. By April 5
   B. By April 7
   C. By April 9
   D. By April 16

6. During an applicable Regulation M restricted activity period, an issuer is restricted from all of the following activities **except**:

   A. bidding for a covered security.
   B. completing odd-lot transactions in a covered security.
   C. purchasing a security subject to the provisions of Regulation M.
   D. attempting to induce the purchase of a covered security by a non-distribution participant.

7. Under Regulation M Rule 101, actively traded securities are:

   A. subject to a restricted period that begins one business day prior to pricing.
   B. subject to a restricted period that begins three business days prior to pricing.
   C. subject to a restricted period that begins five business days prior to pricing.
   D. not subject to a restricted trading period.

8. Which of the following would be classified as a qualified institutional buyer (QIB)?

   A. A $25 million, not-for-profit organization
   B. A high-net-worth individual with annual income of at least $50 million
   C. A $1 billion hedge fund
   D. An investment management company with assets under management of $50 million

Unit Exam (Continued)

9. Under SEC Rule 10b-18, an issuer with an average trading volume of less than $1 million per day or a public float value below $150 million is not advised to repurchase its own securities:

   A. at any time.
   B. within the first hour of the opening.
   C. within 10 minutes of the end of the trading day.
   D. within 30 minutes of the end of the trading day.

10. Under Regulation M, which statement regarding stabilization is most accurate?

    A. An underwriter can stabilize for up to 30 days after the effective date of the offering
    B. A market maker can use either their primary ID or supplemental ID when stabilizing
    C. An underwriter can never stabilize above the IPO price
    D. Either the issuer or an underwriter can be the party stabilizing the offering

Unit Exam—Solutions

1. **(B)** All of these activities are permitted with the exception of a tie-in arrangement. This occurs when an underwriter allocates a share to an investor contingent on the investor purchasing additional shares on the secondary market. This is considered manipulative and therefore is prohibited.
2. **(D)** The first transaction in an IPO must occur on the primary listing place (e.g., Nasdaq or NYSE). After the initial transaction, the shares can trade on other exchanges and OTC.
3. **(C)** In a Dutch auction tender offer, all accepted shares receive the clearing price, which is the lowest price in which the entire tender can be satisfied. In this case, $17.00 is the clearing price, because it is the lowest price where the company reaches its goal of 100,000 total shares.
4. **(A)** Prior to an IPO, orders to purchase stock are permitted, but they must be limit orders. Therefore, a market order to buy XYZ would be prohibited.
5. **(B)** The book-running lead manager must take notification actions at least two business days before the release or waiver of any lock-up. This rule is designed to soften the impact of any lock-up expirations on share prices.
6. **(B)** Odd-lot transactions (typically less than 100 shares) during the applicable restricted period may be completed by offering participants in accordance with applicable written policies and procedures defined by Regulation M. This is allowed because these transactions are not likely to influence the price of the security.
7. **(D)** Under Rule 101 of Regulation M, actively traded securities, or those with an average daily trading volume (ADTV) of at least $1 million where the issuer's common equity securities have a public float value of at least $150 million, are subject to no restricted period. This is known as the exception for actively traded securities.
8. **(C)** The hedge fund with assets under management of $1 billion would be a qualified institutional buyer, as the threshold is assets under management of at least $100 million.
9. **(D)** An issuer with an average trading volume of less than $1 million per day or a public float value below $150 million is not covered under the safe harbor within the last 30 minutes of trading. Companies with higher average daily trading volume or public float value are within the safe harbor up until the last 10 minutes of trading.
10. **(C)** An underwriter can never stabilize above the IPO price. There can only be one stabilization bid at any time, typically done by the managing underwriter, but it can never be the issuer. An underwriter is allowed to stabilize indefinitely and when stabilizing, a primary MPID must be used, never a supplemental MPID.

Prioritize the Fundamentals to Accelerated Learning

As you prep for your securities exam, imagine you're an athlete training for a marathon—if you forego the fundamentals of rest, recovery, and good nutrition, your performance will suffer. Our Study Essentials course emphasizes the importance of self-care for optimal performance. I know it may feel like a good idea to study another few hours rather than sleep—but it's not. While you sleep, you integrate new information that has been learned during the day with information that has already been stored. Target seven to eight hours of sleep per night and don't pull all-nighters.

If you're having trouble focusing, or feel stressed out, get moving. Take a walk around the block, stretch, or do some strength exercises. Studying for a securities exam is not the time to drop your workouts. In fact, physical activity pumps blood to your brain, which provides the oxygen and nutrients you need to process information. Research has found that physical activity boosts brain power and academic performance, among other benefits.

Lean into these three key practices to maximize your self-care and your performance:

- Use breathing exercises to help manage stress and reduce cortisol levels
- Stop the negative self-talk—because if you tell yourself you can't, you won't
- Fuel your body with nutrient-rich brain foods

Remember, your mood and self-care are connected to how effectively you're able to study and perform on your exam. Prioritizing the fundamentals will improve your ability to learn, retain, and recall information on exam day.

Here's to making the most of every single hour you study. We believe in your success!

—*Dave*

7. Equity Markets Securities Regulations

Traders and market makers are required to operate within the framework of US securities regulations. This chapter will review a number of those regulations, including:

- Regulation ATS
- Anti-manipulation rules
- FINRA rules that apply to equity traders

7.1 Regulation ATS

We've discussed the Nasdaq, ADF, and OTC systems that market makers can use to display, review, and execute orders for their own accounts or the accounts of their customers. In addition to these venues of liquidity, the SEC and FINRA allow alternative trading systems (ATSs) to register and match willing buyers and sellers in securities transactions. As its name suggests, an ATS offers an alternative to traditional exchanges for parties seeking to trade securities.

For regulatory purposes, an alternative trading system is a marketplace that brings together purchasers and sellers, but does not set rules for them. Participants in an ATS are generally referred to as **subscribers**. ATSs are typically regulated as broker-dealers rather than as securities exchanges.

ATSs play an important role in public markets by allowing investors an alternative means of accessing liquidity. ATSs are frequently used for trading large blocks of shares away from an exchange. They are generally electronic, though this is not required.

Examples of ATSs include:

- Electronic communications networks (ECNs)
- Electronic trade matching
- Crossing networks
- Dark pools
- OTC Link (the registered ATS for OTC Pink)

While the trading mechanics of an ATS are not important for the exam, the regulatory requirements of an ATS are important.

In 1998, the SEC introduced Regulation ATS, which was designed to protect investors, monitor trades, and resolve any conflicts arising from this type of trading system.

7.1.1 Registration Requirements

To register as an ATS, an entity must:

1. Demonstrate to FINRA that it is in compliance with Regulation ATS
2. Be registered as a FINRA member
3. Provide NMS stock trade data, such as the prices and sizes of the orders at the highest buy price and the lowest sell price, to a national exchange for dissemination, and
4. Provide fair access and reasonable fees

All alternative trading systems subject to Regulation ATS must register as broker-dealers and file an initial operation report on Form ATS. Form ATS must be filed at least 20 days prior to commencing operations.

Thereafter, an amended Form ATS must be filed at least 20 days prior to any material change in operations. If any non-material information on the initial report becomes outdated or inaccurate, an amended Form ATS must be filed within 30 days of the end of the calendar quarter.

Once the ATS ceases operations, it must file a cessation of operations report on Form ATS.

Form ATS requires the following information:

- Name, address, phone, and contact personnel for the ATS
- Date of commencement of operations (if applicable)
- Classes of subscribers (e.g., broker-dealers, institutional, retail)
- Types of securities the ATS expects to trade and the actual securities it expects to trade
- Bylaws and other rules of the ATS
- Operational details of the ATS
- Security protocols of the ATS
- Identity of anyplace other than the ATS that will hold subscriber funds or securities
- Identity of direct owners of the ATS

7.1.1.1 Exemptions from Registration

The following alternative trading systems are exempt from registration and from filing Form ATS:

- An ATS registered as an exchange
- An ATS exempted by the SEC due to low trading volume
- An ATS operated by an SRO (e.g., FINRA)
- An ATS that is already registered as a broker-dealer and limits trading to government securities, repurchase agreements (repos), or derivatives on government securities

7.1.2 Reporting Requirements

Regulation ATS requires that an alternative trading system comply with heightened reporting and recordkeeping requirements under Reg ATS Rule 301 if, during at least four of the preceding six calendar months, 5% or more of the trading volume of any NMS stock or OTC equity was executed on the ATS. Likewise, reports are required if 5% or more of the US trading volume in a municipal or corporate debt security was traded on the ATS.

The heightened reporting and recordkeeping require the ATS to have written standards for granting access to trading on its system and to maintain and report grants, denials, and limitations of access.

For ease of explanation, securities that satisfy this requirement are referred to as **qualifying securities** throughout this section. This is not a formal term that will be seen on the exam.

Example

In the first six months of the year, FastEx ATS executed the following trading volume in shares of ABCC, an OTC equity:

Month	FastEx Execution	Total Volume	% Executed on FastEx ATS
Jan (1)	720	12,000	**6.0%**
Feb (2)	380	9,500	4.0%
Mar (3)	330	6,000	**5.5%**
April (4)	920	11,500	**8.0%**
May (5)	405	4,500	**9.0%**
June (6)	300	10,000	3.0%

Because FastEx accounted for more than 5% of the total trading volume in ABCC in at least four of the last six months, ABCC is deemed a qualifying security and FastEx must comply with reporting and recordkeeping requirements with respect to ABCC stock.

7.1.3 Order Display and Execution Access

ATS must disseminate the best bid, ask, and size to an exchange (e.g., Nasdaq) or a regulator (e.g., FINRA) for any NMS stock that is a qualifying security. An exception is available for securities in which the ATS does not display orders to other subscribers or participants.

An ATS is also required to offer broker-dealers the ability to trade against the best bid or ask displayed on the ATS. The number of shares available to trade for such broker-dealers is the lesser of the shares available at that price or the execution size sought by the broker-dealer.

Example

FastEx ATS facilitates trades in ABCC common stock. Over each of the last six months, it has accounted for 7% of the trading volume in ABCC. Furthermore, it widely disseminates orders for ABCC to other subscribers. Therefore, it must publicly disseminate its best bid and best offer in ABCC stock and must make these quotes available to broker-dealers.

7.1.4 Fees

Some broker-dealers may choose to access an ATS via an exchange rather than directly. An ATS cannot charge higher fees to these broker-dealers than it charges firms that subscribe directly, and ATS fees must be consistent with the rules of an exchange to which the ATS permits conduit access.

Example

FastEx allows broker-dealers to access its quotes via Nasdaq. FastEx's fees must be the same for broker-dealers that access its quotes directly by subscribing to FastEx as they are for those that access its quotes via the Nasdaq system. Further, because FastEx permits conduit access via Nasdaq, all of FastEx's fees must be consistent with Nasdaq's rules on fees.

7.1.5 Fair Access to ATS Quotes

For any qualifying security, an ATS must provide fair access to quotes. Fair access requires:

- Written standards for granting access to trading on its system
- Policies that prevent prohibited or limited access to ATS services or the application of standards in an unfair or discriminatory manner
- Recordkeeping of all grants, limitations, or denials of access to subscribers, with reasons provided for the limitations or denials. This data must be filed on Form ATS-R (discussed shortly).

7.1.6 Reporting on Form ATS-R

ATSs are required to provide ongoing reports to the SEC, on Form ATS-R. The purpose of these reports is to disclose to the SEC the ATS's level of trading activity.

Form ATS-R must be filed with the SEC as follows:

- Within 30 calendar days after the end of each operating quarter
- Within 10 calendar days after it ceases to operate

7.1.6.1 Contents of Form ATS-R

Form ATS-R requires the firm to disclose unit and dollar volume of transactions in various classifications of securities:

- Exchange-listed
- Nasdaq-listed
- Rule 144A
- Penny stocks
- Rights and warrants
- Listed options
- Unlisted options
- Government securities
- Municipal securities
- Corporate debt securities
- Mortgage-related securities

For equities, the form must also include after-hours volume in both shares and dollar amount.

7.1.7 Capacity, Integrity, and Security of Automated Systems

For qualifying securities where the ATS has 20% volume over four of the preceding six months (as opposed to the lower 5% threshold), additional rules apply. These heightened requirements are only applicable to ATSs that offer order entry, order routing, order execution, transaction reporting, and trade comparison services. Such systems must:

- Establish reasonable current and future capacity estimates
- Conduct periodic capacity stress tests of critical systems
- Develop and implement reasonable procedures to review and keep current its system development and testing methodology
- Review the vulnerability of its systems and data center computer operations to internal and external threats, physical hazards, and natural disasters

- Establish adequate contingency and disaster recovery plans
- On an annual basis, perform an independent audit of the ATS's controls and ensure that senior management reviews the recommendations and conclusions of the audit, and
- Promptly notify the SEC of material system outages and significant system changes

An ATS is exempt from these requirements provided that:

- It matches customer orders for a security with other customer orders
- Orders are not displayed to any person other than ATS employees, and
- Orders are executed at a price that is derived from transactions both within and outside the ATS

7.1.7.1 Confidential Information

An ATS must have procedures in place to limit disclosure of trading information only to those employees who are operating the system or who are responsible for compliance.

Furthermore, the ATS must implement procedures to monitor employees trading in their personal accounts.

7.2 Disclosure of Order Execution and Routing Information

Reg NMS Rules 605 and 606 are designed to improve transparency by requiring market participants to provide uniform order execution and routing information so that investors and broker-dealers can compare execution quality across all market centers.

> ***Knopman Note:*** Regulation NMS Rules 605 and 606 require uniform information on where customer orders are being routed and the quality of execution being received. Candidates should know both the content of the rules and the rule numbers.

7.2.1 NMS Rule 605—Order Execution

Reg NMS Rule 605 requires market centers that trade NMS stocks to make publicly available, on a website that is free for the public to access, monthly electronic reports that include uniform statistical measures of execution quality. A designated participant (a person or a firm) is responsible for maintaining and updating the market center's website.

Market centers include exchange and OTC market makers, alternative trading systems, and national securities exchanges.

These reports include information, on a stock-by-stock basis, about each market center's quality of execution, including how market orders of various sizes are executed relative to the public quotes; they must also disclose details about effective spreads. In addition, market centers must disclose the extent to which they provide executions at prices better than the public quotes to investors using limit orders—this is called **price improvement**. Reports reflect only orders that are both received and executed during normal market hours.

> ***Knopman Note:*** Rule 605 reports only reflect orders that were received and executed during normal market hours.

To facilitate comparisons across market centers, the rule defines basic measures of execution quality, including:

- Effective spread, defined as two times the difference between the execution price and the bid–ask midpoint at the time of the trade

Example

A customer purchases 3,000 shares of ABC stock for 37.82 at a time when the inside market is 37.78–85. The midpoint of the inside market is 37.815 (calculated as 37.78 + 37.85/2). The effective spread is calculated as two times the difference between the execution price and the bid–ask midpoint, so (37.82 – 37.815) × 2 = $0.01.

- Rate of price improvement and decline
- Fill rates, and
- Speed of execution

The statistical information is categorized by individual security and further broken down by five order types and four order sizes. Users can compare order executions for a particular security or for any particular group of securities, as well as for different order types or sizes.

The five types of orders that are covered are:

- Market order
- Marketable limit order (i.e., can be executed based on the current market price at the time of order entry)
- Inside-the-quote limit order
- At-the-quote limit order, and
- Near-the-quote limit order

The four buckets of order size are:

- 100–499 shares
- 500–1,999 shares
- 2,000–4,999 shares
- 5,000+ shares

Orders for which the customer requests special handling for execution, such as stop orders, are excluded from the statistical information discussed above.

> ***Knopman Note:*** Short sales are generally excluded from Reg NMS Rule 605 monthly reports by market centers.

7.2.2 NMS Rule 606—Order Routing

Broker-dealers that route customer orders in equity and options securities are required to produce quarterly reports on non-directed market and limit orders. These reports must be filed with the SEC and made available to the public within one month after the end of each calendar quarter.

Three steps are required to publicly disseminate these reports:

1. Post it on a free website (usually the company's own website)
2. Furnish a written copy of it upon request, and
3. Notify customers at least annually that a written copy will be furnished upon request

Customer orders with special instructions (e.g., "all or none," "not held") are not included in these reports. Orders where the customer specifically instructs routing through a particular trading venue (i.e., directed orders) are also excluded from the reports.

> ***Knopman Note:***
>
> *Q:* Do order routing reports under Rule 606 apply to all customer orders?
>
> *A:* No, Rule 606 reports apply only to non-directed market orders and limit orders.
>
> Note that Rule 606 reports do not include directed orders, since those orders are filled through the venue of a customer's choosing.

7.2.2.1 Contents of Order Routing Reports

Rule 606 reports are broken into four sections:

1. NYSE securities
2. Nasdaq securities
3. Securities listed on other exchanges
4. Options contracts on NMS stocks

For each of these four sections, the following information must be included:

- The percentage of total customer orders that were non-directed orders, and the percentages of total non-directed orders that were market orders, limit orders, and other orders

- The identity of the 10 venues which were routed the largest number of non-directed orders for execution and the identity of any venue to which 5% or more of non-directed orders were routed. For each venue listed, the following information must be provided:
    - The percentage of total non-directed orders routed to the venue and the percentages of total non-directed market orders, total non-directed limit orders, and total non-directed other orders that were routed to the venue
- A discussion of the material aspects of the broker-dealer's relationship with each venue, including a description of any arrangement for payment for order flow and any profit-sharing relationship

Upon request, broker-dealers are also required to disclose to customers the venues where their individual orders (both directed and non-directed) were routed during the six months preceding the request. Customers must be notified at least annually that this information is available.

> ***Knopman Note:*** A Rule 606 report must include the top 10 venues to which a broker-dealer routes customer orders along with other venues to which the firm routes at least 5% of non-directed customer orders.

A sample NMS Rule 606 report can be seen here:

Non-Directed Orders as a Percentage of Total Customer Orders:				80.20%
Percentage of Non-Directed Customer Orders That Were:		Market	Limit	Other (includes "not held")
		17.50%	20.30%	62.20%
Routing Information Concerning Significant Venues				
Percentage of Orders Routed to Significant Venues	Total Non-Directed Orders	Non-Directed Market Orders	Non-Directed Limit Orders	Non-Directed Other Orders
1. BATS Exchange, Inc. (BATY)	23.00%	20.70%	14.30%	21.20%
2. The Nasdaq Stock Market LLC (XNAS)	20.00%	25.80%	29.30%	18.00%
3. Nasdaq OMX BX (BOSE)	14.00%	15.00%	20.00%	17.60%
4. EDGA Exchange, Inc. (EDGA)	11.00%	12.30%	12.00%	18.50%
5. NYSE Arca, Inc. (ARCA)	8.00%	8.00%	10.30%	7.00%
6. BATS Exchange, Inc. (BATS)	7.00%	7.00%	4.80%	6.60%
7. EDGX Exchange, Inc. (EDGX)	5.00%	5.00%	3.10%	3.80%
8. Nasdaq OMX PHLX, Inc. (XPHL)	3.00%	4.00%	2.00%	3.20%
9. CDRO	1.00%	1.00%	1.00%	1.00%
10. IEX	0.50%	0.50%	0.50%	0.50%

Knopman Note:

Q: What is a good way to remember the difference between the 605 and 606 reports?

A: The 605 report is Monthly for Market Centers. Remember the two M's in "Monthly" and "Market Centers."

A 606 report is the other one: Namely, quarterly for broker-dealers.

7.3 Suitability Requirements

Suitability requirements apply to both recommended **securities transactions** and **investment strategies**, such as a recommended series of purchases or recommendations to meet a particular goal (college, retirement, etc.). Registered representatives may not make blanket or blind recommendations to investors without knowledge of their specific circumstances and facts.

FINRA Rule 2111 defines three different types of suitability:

- Customer-specific suitability
- Reasonable basis suitability
- Quantitative suitability

7.3.1 Customer-Specific Suitability

Securities professionals must obtain from their clients certain basic information, such as their age, financial needs, existing investments, tax bracket, investment experience, and liquidity needs. This know-your-customer (KYC) process is also referred to as **customer-specific suitability** and must guide any recommendation a registered rep makes to a client.

7.3.1.1 Suitability for Institutional Accounts

The suitability requirements for institutional accounts differ from those governing retail accounts. FINRA defines an **institutional account** as an account owned by a corporation, such as a bank or an insurance company; an investment adviser; or any other entity with total assets of at least $50 million.

For institutional clients, the customer-specific suitability obligation is satisfied if:

1. The rep believes the client is capable of evaluating investment risk independently, and
2. The client indicates it is exercising independent judgment in evaluating recommendations. Institutional investors can affirmatively indicate that they are exercising independent judgment on a trade-by-trade basis, on an asset-class-by-asset-class basis, or for all transactions.

If the registered rep believes the client satisfies both of these items, she does not need to evaluate the client's investment profile before recommending a product.

She can make the product available to the client, who in turn will decide whether it is appropriate.

Some considerations for evaluating the capabilities of an institutional client include:

- The client's use of consultants, investment advisers, or bank trust departments
- The customer's general experience in financial markets and with the specific type of instrument being recommended
- The customer's ability to understand economic features, market developments, and the complexities of the securities being recommended
- The nature of the relationship between the firm and the customer

If a customer is not capable of evaluating risks, then the suitability requirements are the same as for an individual investor.

Example

A broker-dealer has a hedge fund client. The hedge fund is in the business of evaluating securities and does so independently of any recommendation from the broker-dealer. Because the objective of a hedge fund business is to understand economic and financial markets as well as complex securities products and to find and seize investment opportunities, the broker-dealer does not need to consider any of the fund's specific suitability requirements when making recommendations.

Knopman Note: To satisfy the suitability obligation for an institutional client, the rep must believe that the client is capable of evaluating risks independently and the client must indicate it is exercising independent judgment of the rep's recommendations. Satisfying one of the requirements is not sufficient.

Knopman Note: If an institutional client suggests a trade that would take the client over their credit limit at that broker-dealer, the registered representative should talk to their supervisor about increasing the limit.

7.3.2 Reasonable Basis Suitability

A rep must have a **reasonable basis** to believe, based on adequate due diligence, that a recommendation is suitable for at least *some* investors. This is a very low standard—it does not require that the investment be suitable for the specific customer—but instead requires that the recommendation be suitable for some imagined investor. To make this determination, a rep examines the investment's liquidity, secondary-market pricing and transparency, creditworthiness of the issuer, risks, tax consequences, and costs. If a registered rep does not understand the transaction, recommending it is a violation of the reasonable basis suitability requirement.

As it relates to a new issue, each underwriter must separately confirm reasonable basis suitability for its own customers. This requirement cannot be delegated or divided among members of the syndicate. However, firms can share due diligence resources and information, such as third-party evaluations, with each other for such purposes.

7.3.3 Quantitative Suitability

Quantitative suitability requires that the firm have a reasonable basis for believing that a series of recommended transactions is not excessive or unsuitable, even if each transaction in isolation might be suitable. This requires a careful analysis of the investor's current portfolio to ensure that its overall investment objectives are being met in an efficient and cost-effective manner.

Example

A client seeking a diversified portfolio of large-cap US equities might consider an investment portfolio that would track the S&P 500. To execute this strategy by individually purchasing each stock in the S&P 500—rather than buying a single mutual fund or ETF that tracks the S&P 500—might violate the quantitative suitability rules, even though buying each stock was a part of the investment strategy.

Knopman Note: Summary of important suitability items:

- It is a violation of the suitability rules to email all of one's clients with the same recommendation. This is a know-your-customer (KYC) violation.
- Suitability focuses on whether there is a reasonable basis to believe that a recommended transaction or investment strategy is appropriate for the customer.
- KYC focuses on knowing the "essential facts" concerning each customer account, e.g., the customer's identity, background, investment history, and sources of investable funds.

7.3.4 Regulation Best Interest (BI)

In 2019, the SEC passed **Regulation Best Interest (Reg BI)** to enhance standards of investor protection. It establishes a heightened standard of conduct for broker-dealers and their representatives when making recommendations of securities transactions, investment strategies, or types of accounts to retail customers. In meeting this standard, the interests of the customers must be placed ahead of the interests of the firm and its representatives, and cost and other alternatives must be considered.

Reg BI raises the bar from FINRA's suitability standard, described above, which previously applied to all customer recommendations. It requires that broker-dealers do the right thing, not just make recommendations that are within the zone of what is appropriate for the customer.

Recommendations subject to Reg BI include those for personal, family, or household purposes of retail customers.

> ***Knopman Note:*** Retail recommendations are no longer subject to FINRA's suitability standard under Rule 2111, which continues to apply to recommended transactions with entities and institutions, e.g., pension funds, small businesses, and charitable trusts.

Under Reg BI, a recommendation is any communication that could be viewed as a call to action and would influence an investor's behavior. Recommendations covered by Reg BI include those addressing:

- Specific securities (to buy, sell, hold XYZ or XYZ fund)
- Specific account types (to open an IRA or another brokerage account)
- Rollovers or transfers (to move a workplace retirement plan or change IRA trustees)

To comply with Reg BI, firms must address the four obligations below:

1. **Disclosure Obligation**—Provide certain required disclosure about the recommendation and the relationship with the retail customer
2. **Care Obligation**—Exercise reasonable diligence, care, and skill in making the recommendation
3. **Conflict of Interest Obligation**—Establish, maintain, and enforce written policies and procedures to address conflicts of interest, and
4. **Compliance Obligation**—Establish, maintain, and enforce written policies and procedures to achieve compliance with Reg BI

The disclosure obligation mandates the use of a **Customer Relationship Summary (Form CRS)**, which must be provided to the customer at or prior to the earliest of making a recommendation to a customer, placing an order for a customer, or opening a new account. The relationship summary must inform investors of:

- The types of client and customer relationships and services the firm offers
- The fees, costs, conflicts of interest, and required standard of conduct associated with those relationships and services
- Whether the firm and its financial professionals currently have reportable legal or disciplinary history, and

- How to obtain additional information about the firm

Reg BI requires broker-dealers to disclose all material facts relating to conflicts of interest when making a recommendation, including conflicts of interest associated with proprietary products, payments from third parties, and compensation programs. Sales contests and quotas around the sale of a particular product are no longer permitted.

7.4 Large Trader Reporting

On July 26, 2011, the SEC adopted Rule 13h-1, which requires large trader registration, reporting, and monitoring. This rule allows regulators to identify and obtain basic information about traders that conduct a substantial amount of trading in US securities markets. The rule does not limit their trading.

The purpose of the large trader reporting requirements is to allow the SEC to:

- Assess the impact of large trader activity on the securities markets
- Reconstruct trading activity following periods of unusual market volatility, and
- Analyze significant market events for regulatory purposes

A **large trader** is defined as a person or entity that, directly or indirectly, including in discretionary accounts it controls, effects transactions in exchange-listed equities and options that:

1. Equal or exceed two million shares, or $20 million in fair market value during any calendar day, or
2. Equal or exceed 20 million shares, or $200 million in fair market value over the course of any calendar month

In the case of discretionary accounts, large trader status applies to the adviser or agent with trading discretion over an account, not to the account itself or to the beneficial owner of the account.

Large traders—foreign or domestic—as defined above, must register with the SEC via Form 13H and obtain a large trader identification number (LTID). All large traders are required to provide their LTIDs to broker-dealers when placing orders.

Individuals trading for their own accounts, or for an LLC or other entity holding their own assets, are also subject to the registration requirements of the rule.

To summarize, large traders register with the SEC, get an LTID, and provide it to broker-dealers that execute trades on the large trader's behalf.

7.4.1 Calculating Options Traded

To calculate options trading for large trader threshold purposes, the options transactions are converted into a share count and dollar value of the underlying shares. To determine the value of shares traded, each options contract is generally assumed to be equal to 100 shares of its underlying security.

Shares Traded = Options Contracts Traded × Option Multiplier (typically 100)

Dollars Traded = Options Contracts Traded × Option Multiplier × Price of Underlying Equity

Example

A customer trades 200 out-of-the-money Google (GOOG) options at $20,000. Assume Google stock is worth $1,030.58. For large trader reporting purposes, the dollar amount traded by the customer is calculated as follows:

Dollar Value = 200 Contracts × 100 Multiplier × $1,030.58 = $20,611,600

Based on this calculation, although the customer only traded $20,000's worth of options, the trading in the customer's account(s) meets the dollar threshold of the Large Trader Rule and would trigger the registration and disclosure requirements. Notice how the relevant data point is the market value of the underlying equity, not the strike price.

7.4.1.1 Dollar Calculation for Index Options

The calculation for index options is:

Dollars Traded = Options Contracts × Multiplier × Market Price of Index Options

Example

If XYZ Index has a multiplier of 100, a person who purchased 200 XYZ Index call options for $400 each would have effected an aggregate transaction of $8 million (200 Options × 100 Multiplier × $400 Price). This transaction is below the LTID thresholds individually, but would still be aggregated with other trades for the monthly large trader analysis.

7.4.2 Recordkeeping, Reporting, and Monitoring

The Large Trader Rule requires broker-dealers to maintain and report data when requested by the SEC. In addition, the rule requires broker-dealers to monitor whether their customers meet the threshold levels that define a large trader.

7.4.3 Timing and Types of 13H Filings

There are six types of Form 13H filings for large traders:

- **Initial filing**—A person must promptly (i.e., within 10 days) file an initial Form 13H after its transactions reach the identifying activity level.

- **Annual filing**—After its initial filing, a large trader must file an annual Form 13H within 45 days of the calendar year's end.
- **Amended filing**—In the event any of the information in Form 13H becomes inaccurate, a large trader must file an amended 13H following the end of the calendar quarter in which the information changed.
- **Inactive filing**—A large trader whose volume dropped below the threshold levels for the previous full calendar year may file an inactive status Form 13H, which permits the trader to not disclose its LTID when placing orders and to no longer be required to file Form 13H.
- **Reactivated filing**—In the event the trader's transactions exceed the thresholds, it must submit a reactivated status Form 13H.
- **Termination filing**—A large trader that ceases operations or, in some cases, is acquired, may file a termination Form 13H, terminating its large trader status.

> ***Knopman Note:*** Understanding inactive status is important for the exam. Large traders must identify themselves using a Form 13H. However, "inactive status" is available for large traders who did not cross the large trader threshold at any time during the previous full calendar year. Once inactive, a large trader need not file Form 13H unless and until its transactions are equal to or greater than the threshold level.

7.4.3.1 Form 13H Contents

Form 13H requires large traders to provide the following information:

- Businesses in which the large trader is engaged (e.g., broker-dealer, investment adviser, futures commission merchant, bank, pension trustee)
- Other SEC filings it is subject to (e.g., 10-Q, 13F)
- Disclosure of whether it is subject to futures regulators or foreign regulators
- Organization chart identifying the parent company and any affiliates in the securities industry
- Structure and governance of the large trader (e.g., trust, LLC, partnership, corporation)
- Disclosure of any general partners (if applicable) and any limited partners with interests greater than 10% in the accounts of the large trader
- Names of executive officers, directors, and trustees
- Locations of all prime broker, executing broker, and clearing broker accounts

7.4.4 Voluntary Filing and Confidentiality

To avoid monitoring their own trading levels and to aggregate trading activity across accounts they manage, traders can file Form 13H on a voluntary basis even before trading thresholds are met, thereby ensuring full compliance with the rule.

Rule 13h-1 imposes monitoring requirements on registered broker-dealers, including the monitoring of customer accounts, to determine whether they are compliant with the large trader reporting requirements. Upon request, broker-dealers are required to report trading activity to the SEC within one business day.

Form 13H filings are not available to the public. All registration information provided to the SEC by large traders is confidential and is exempt from disclosure under the Freedom of Information Act.

7.5 Qualified Block Positioner

A **qualified block positioner** is a type of market maker that is eligible to buy or sell blocks of stock with a current market value of $200,000 or more. Qualified block positioners may be engaged by large traders to minimize the effect of their large orders and maintain anonymity in the marketplace.

To register as a block positioner, a firm must maintain minimum net capital of $1 million. In general, block positioners are sophisticated market makers that are able to buy or sell large positions while managing their risks, often using hedges until positions can be unwound.

The **block transaction** may be:

- A single transaction
- Several transactions executed at about the same time, or
- Several transactions from a single source to facilitate a customer's purchase or sale

A block transaction is executed with a **single purpose**, such as filling a customer order, and excludes transactions executed to manage the market maker's own inventory.

Example

A customer wishes to buy $300,000's worth of an OTC stock directly from a market maker. This exceeds the $200,000 threshold for a block trade. If the broker-dealer sells the stock to the customer in a series of orders over a period of days, or if all the stock is sold from inventory, then it meets the single source test and is participating in a block trade. The broker-dealer is acting as a qualified block positioner, and must be registered as such.

A qualified block positioner must exercise reasonable due diligence to determine that the block can't be bought or sold from others on equivalent or better terms. Also, the block must be bought or sold as rapidly as possible, commensurate with the circumstances.

> ***Knopman Note:*** Block positioners are exempt from the locate requirement for short sales as mandated by Regulation SHO.

Other than "as rapidly as possible," there is no strict timeframe for executing a block. But, under FINRA Rule 5340, it is prohibited to pre-time stamp order tickets in connection with block positioning.

> ***Knopman Note:*** Under most rules, a block trade is defined as having at least 10,000 shares or a value of $200,000 or more. An exception is the FINRA definition of a block trade in OTC equities, which is a trade of at least 10,000 shares and at least $100,000 in market value.

7.6 Miscellaneous FINRA Regulations

A number of additional FINRA rules apply to equity traders and other registered representatives.

7.6.1 Payments Involving Publications

FINRA Rule 5230 covers payments made in connection with the publication or circulation of media capable of moving securities prices.

The definition of **media** is expansive, covering both traditional media, such as newspapers, magazines, and TV, and new electronic media, such as websites and social media.

Associated persons may not give, permit to be given, or offer to give **anything of value** in an attempt to influence or reward actions of another person involved in publishing or circulating media covered by the rule, when that media:

- Has an effect on the market price of any security, or
- Is intended to have an effect upon the market price of any security

Note that "anything of value" can be non-monetary. For example, it can be entertainment, such as a seat at a sporting event.

Example

A blogger specializing in the biotech industry contacts an analyst who covers the industry, asking for her views on a new drug being developed by GeneticBrands, a public company. The blogger quotes the analyst's research in a blog post. That same day the stock rises by 5%. The blogger then offers to pay the analyst's airfare to attend a biotech industry conference in Las Vegas, and she accepts. Is this a violation of Rule 5230?

Yes. Two conditions trigger a rule violation: 1) an attempt to influence or reward the actions of another person involved in publishing or circulating media and 2) an actual or intended impact on market prices.

The analyst in this case has not given or offered to give a payment. Rather, the analyst violated the rule by receiving the payment—thus "permitting" it to be given. There is little question in this case that the "actual impact" trigger exists, because the stock increased by 5% on the same day the blog post was published.

Although blog posts are not explicitly mentioned by the rule, the rule covers a broad spectrum of media, citing "electronic or other public media, including any investment service."

The exceptions to this rule are:

- Exposure that is *clearly distinguishable* as paid advertising
- Research reports, and
- Communications that disclose the receipt of compensation from an issuer, underwriter, or dealer in a specific amount

The key takeaway is that analysts should not offer or accept payments of any type designed to influence market prices through the media.

7.6.2 Trading Ahead of Research Reports

FINRA Rule 5280 prohibits member firms from establishing or adjusting inventory positions in **any security or derivative** of the subject company ahead of research report publication. This includes both listed and OTC securities, and public and privately offered securities. In addition, it requires member firms to establish internal controls that restrict information flow between analysts and traders. If other people in the firm obtain advance knowledge of research reports, they are restricted from communicating with traders as well.

FINRA members are not allowed to alter their inventory positions based on non-public advance knowledge of the content or timing of a research report concerning the same security. **Alter** means:

- Establish inventory
- Increase inventory
- Decrease or liquidate inventory

Knopman Note: Firms may not adjust inventory positions in any way based on advance knowledge of research. A firm's inventory will change every day through normal market trading—this is permitted. It is inventory management based on knowledge of the research report that triggers a violation. As a result, research should not discuss an upcoming report with the trading desk.

The rule focuses on a member firm's trading from its own inventory—not on orders placed for customers. However, if the firm receives nonpublic advance information from a research report, it must place customer orders on an **agency basis**. To place these orders on a principal basis would alter inventory. Note that a firm is not permitted to alter inventory in opposition to a research report recommendation—e.g., to sell securities when the research report recommends buying.

Knopman Note: If the event causing a change in a pending research report is public (e.g., there is widely reported news that a company has lost a major client or government contract), a trader could inform a client of the public news but must remain silent as to any pending change in the research coverage.

Also, the member firm must establish, maintain, and enforce policies and procedures reasonably designed to restrict or limit information flowing between the research department and trading personnel. This requirement is usually met by creating information barriers between research and trading units. The barriers prevent communication about upcoming research reports and provide management oversight of trading activity in subject securities.

If a research report is reserved exclusively for the firm's internal use and there is no external distribution, the prohibition against inventory-altering principal trading does not apply.

7.6.3 Anti-Intimidation/Coordination

To facilitate robust and fair markets, broker-dealers, market makers, and market participants must set their quotes independently. Regulations prohibit any attempt to coordinate prices, quotes, or trade reports between **two or more** members, associated persons, and investors, or with anyone else. This also prohibits members from directing, requesting, or threatening another member to alter a price or quote.

FINRA Rule 5240's anti-intimidation provisions are specifically designed to prevent firms from intimidating other firms to adjust or maintain a particular price or quote. For this purpose, intimidation may include:

- Threats
- Harassment
- Coercion

- Refusal to trade
- Retaliation
- Discouragement of competitive activities

Brokerage firms should document written supervisory procedures to assure compliance with an anti-intimidation/coordination policy.

Example

Brokerage Firm A, an OTC market maker, believes that Firm B, another market maker, is backing away from its firm quotes. Firm A decides as a matter of policy that it no longer wishes to trade with Firm B, as it has a right to do. However, if Firm A contacts Firm C and attempts to coordinate its participation in a boycott of Firm B, it is engaged in a prohibited coordination against Firm B. Firm A's best response would be to contact Firm B to discuss the backing away and, if that is unsuccessful, to bring the matter to the appropriate regulator.

The prohibitions against intimidation and coordination do not limit the ability of a member or an associated person to:

- Unilaterally set its own bid or ask quotes, quote sizes, or bid–ask spreads
- Unilaterally determine the number of shares it is willing to buy or sell
- Communicate its own bid or ask quotes for the purpose of exploring interest, negotiating a purchase or sale, retaining an agent for a purchase or sale, or seeking to be retained as an agent
- Engage in an underwriting or syndicate as permitted by law
- Take unilateral action or make a unilateral decision regarding the market makers with which it will trade and the terms on which it will trade
- Deliver an order to another member for handling

7.6.4 Order-Splitting and Trade-Shredding

Order-splitting, or trade/tape-shredding, is the practice of:

- Splitting one order into multiple smaller orders for execution, or
- Splitting one order execution into multiple smaller executions for trade reporting

FINRA Rule 5290 prohibits order-splitting or trade/tape-shredding for the primary purpose of increasing monetary payments (e.g., commissions) or in-kind payments (e.g., soft dollars).

In-kind payments include credits, commissions, gratuities, rebates and fees, or anything else of value given to a member or an associated person.

Example

A 1,000-share order is split into 10 orders of 100 shares so that a member can earn a higher rebate because the exchange the member plans to route the order to pays a per-trade rebate. To split orders so that the firm can earn a higher rebate is prohibited.

The rule was adopted in 2006 because FINRA was concerned about the growing practice of using trade/tape-shredding to increase a member's share of market data revenues under joint-industry plans. In such a plan, the participants agree to share revenues with brokers that route orders.

If a trader must split an order or trade report for a valid reason, it is important to document the reason and indicate the purpose of the split was not **remunerative** to the broker-dealer. One common reason cited by traders is that smaller orders can be filled faster. However, this reason applies only to order execution, not trade reporting.

Example

A 1,000-share order is split into 10 orders of 100 shares because the market is thin and the trader believes the client will receive better and faster execution with 10 small orders rather than one large order. This is permissible.

Knopman Note: A trader is allowed to split an order for a valid reason, such as faster execution, but trade-shredding to generate additional commissions is prohibited.

7.6.5 Trading Otherwise Than on an Exchange

Under FINRA Rule 6110, members are required to report any transaction in NMS stocks that are effected otherwise than on or through a national securities exchange (e.g., OTC). The idea here is that if a transaction is effected on an exchange (e.g., Nasdaq) it will be locked-in and automatically reported to the appropriate reporting facility. If, on the other hand, the trade is not effected on an exchange, the trade participants are responsible for reporting the transaction within the appropriate timeframe. The determination of what constitutes **on or through** a particular national securities exchange is determined by that exchange in accordance with all applicable statutes, rules and regulations, and with any necessary SEC approval.

Broker-dealers must be prudent in executing and reporting transactions, as they may only do so on SEC-registered exchanges or exchanges that are exempt from registration. Put differently, if a broker-dealer trades on an exchange, the exchange must be registered or exempt; if the trade is off an exchange, that is OK too. What is not allowed is trading on an unregistered, non-exempt exchange.

7.6.5.1 National Securities Exchanges

When a new exchange is formed, it must fill out an application and register its constitution, bylaws, and articles of incorporation with the SEC. The application will contain the rules of the exchange and any other required information. When the SEC reviews the exchange application, it will make sure that the rules of the exchange are accompanied by an enforceable system of compliance and that these rules will prevent fraudulent and manipulative actions and promote fair and equitable trading practices.

An exchange cannot grant membership to any broker-dealer that is not registered with the SEC. Moreover, exchange membership must be denied to anyone not associated with a broker-dealer or anyone subject to a statutory disqualification that prevents association with a self-regulatory organization (SRO). If an exchange finds that a member has been expelled or suspended by another SRO, it may immediately suspend that individual. The exchange is required to either limit the activities of or suspend any member that is experiencing financial or operational difficulties that would lead to the harm of investors, other members, creditors, or the exchange itself.

7.6.6 Publication of Transactions and Quotations

FINRA Rule 5210 (and Nasdaq Rule 3310) prohibits a member firm from circulating communications of any kind that report transactions in a security unless the member believes that the transaction was a bona fide transaction in the security. Examples of communications to which the rule applies are printed or online notices, circulars, advertisements, newspaper articles, or notices via an investment service. One common application of this rule is when market makers wish to publish their market share in certain securities for a daily or weekly period or longer: The market maker is prohibited from advertising more trading volume in a security than the amount actually executed.

Example

Broker-Dealer B wants to advertise the number of shares it traded in XYZ, Inc., common stock today. So far today, it has traded 175,000 shares in the company. The maximum number of shares it can advertise that it has traded is 175,000 shares. It cannot advertise even one share more than that amount.

In conclusion, broker-dealers can only publish trading volumes reflecting the actual shares traded, or less. They cannot publish or advertise trading volume in excess of that number.

Similarly, the rule requires firms to have procedures in place to prevent a pattern of self-trades. These are trades where both sides originate from the same firm and involve no change in beneficial ownership. This includes trades that result from unrelated algorithms or trading strategies.

Knopman Note: Broker-dealers must have procedures in place to review and prevent a pattern of self-trades. Assuming procedures are in place, a self-trade is not a violation if it was unintentional. For example, if the trade occurred between legitimately distinct trading desks and was not done merely to create the illusion of activity in a security, it would not be a violation.

7.7 Penny Stocks

A **penny stock** is an unlisted security trading for less than $5 per share. Most penny stocks trade on the OTC Pink, but the definition also includes equity securities of private companies with no active trading market. Trading, market-making, and soliciting penny stocks is subject to heightened regulatory requirements because of the higher risk of fraud and manipulation historically associated with these securities.

It is each broker-dealer's responsibility to determine whether a security is a penny stock and, if so, to comply with all relevant requirements governing the quoting and trading of penny stocks.

When considering whether a stock is a penny stock, be sure to evaluate both criteria:

1. A price of less than $5, and
2. Unlisted (i.e., not listed on NYSE or Nasdaq)

Example

When big companies fall on hard times, their shares may fall below $5 per share. For example, in November of 2008, shares of Ford Motor briefly fell below $2 per share. However, Ford was never defined as a penny stock because it remained listed on the NYSE.

Knopman Note: In general, penny stocks are defined as OTC equities worth less than $5 per share. However, companies with any of the following financial statistics are NOT penny stocks: Net tangible assets in excess of $2MM (or $5MM if in business less than three years) or average revenue of at least $6MM for the last three years.

This section discusses the quoting and trading of penny stocks, including:

- Special disclosure requirements for trading penny stocks
- Requirements for initiating and resuming quotes

7.7.1 The Penny Stock Disclosure

Unless a penny stock transaction is exempt (discussed shortly), broker-dealers must provide a customer with **a penny stock risk disclosure document**, also called **a Rule 15g-2 Disclosure**, prior to the customer's trading of penny stocks.

The disclosure must include the broker's name, address, phone number, and email address, and the broker must obtain from the customer a **signed and dated acknowledgment** of receipt of the document. Note that the disclosure documents themselves must be signed. It's not sufficient for a customer to sign for receipt of a package containing the document.

> ***Knopman Note:*** The client must sign and return a penny stock risk disclosure document prior to their first penny stock trade.

The disclosure document is designed to alert the customer to risks associated with penny stocks. It's not a requirement for the broker-dealer or registered rep to explain the penny stock disclosures to customers. A copy of the customer acknowledgment must be retained by the broker-dealer for at least three years, and kept in an easily accessible place for the first two years.

The disclosure document contains specific language required by the SEC pertaining to the risks of penny stocks, information a customer is required to receive about the specific security, and a warning regarding a broker-dealer's motivations for selling penny stocks.

The disclosure must be sent, by mail or email, at least two business days before any penny stock transactions. This cooling-off period provides the client additional time to consider the proposed transaction.

Example

Donna, an associated person at a broker-dealer, calls on a client to discuss a penny stock opportunity. The client likes the investment, and Donna sends the penny stock disclosure on Tuesday. The client can place the trade on Thursday, the second business day after the disclosure document was delivered.

7.7.2 Disclosure for Specific Trades

Rule 15g-3 requires a broker-dealer to disclose specific information about a proposed penny stock transaction prior to execution.

7.7.2.1 Current Quote

Rule 15g-3 of the '34 Act requires broker-dealers to disclose, orally or in writing, to customers the inside quote for a penny stock, when one exists. The **inside quote** is defined as the best bid–ask at any time in which at least two market makers are contemporaneously displaying quotes.

If there are fewer than two market makers, the required quotation disclosures are:

- **For transactions on a principal basis**—The dealer must disclose its current offer (bid) price for the security if:
  - The dealer has had three bona fide transactions to other dealers consistently at the same offer price, and
  - The dealer reasonably believes the price accurately reflects the price it would offer to another dealer for a round lot

In summary, if a firm is dealing on a principal basis, the dealer must offer customers a price that is the same as very recent interdealer prices. The broker-dealer also must be prepared to document this price.

If a broker-dealer's prices do not satisfy these criteria, the firm must disclose 1) that it has not made interdealer trades of the penny stock consistently at its quoted price and 2) the specific price at which it **last purchased** the penny stock from another dealer in a bona fide transaction.

- **For agency transactions where there is no quote**—The broker-dealer must disclose the best independent interdealer prices for the penny stock, obtained through **reasonable due diligence**. Due diligence under SEC Rule 15g-3 can be demonstrated by obtaining quotes from at least three market makers.

In all cases, the broker-dealer must disclose the **number of shares** to which any quote applies. The initial penny stock quote disclosure must be provided to the customer, orally or in writing, before the transaction. A quote disclosure must also be provided in writing on or before the trade confirmation. Records confirming these written disclosures must be maintained.

7.7.2.2 Broker-Dealer Compensation

In addition to the quote disclosure, broker-dealers must disclose to customers the **aggregate amount** of compensation the broker-dealer will receive in connection with the penny stock transaction. Two basic requirements relate to the **timing** and **manner** of this disclosure:

- **Timing**—The initial disclosure may be provided orally or in writing, but it must be given to the customer before the transaction. Then, written disclosure must be given before or with the trade confirmation. A single written disclosure, delivered prior to the transaction, satisfies both requirements.
- **Manner**—In an agency transaction, the amount of compensation disclosed is the commission received from the customer. In a principal transaction, it is the difference between the price charged to the customer and the prevailing market price charged by a market maker who works in an active and competitive market—i.e., the reference market maker.

An **active and competitive market** is one where the aggregate number of transactions by the market maker in the same penny stock, over the last five business days, is less than 20% of aggregate transactions in the same stock.

Example

A broker-dealer sells a penny stock to a customer from its inventory, in a principal transaction, at $3.50 per share. The best offer in this stock is at $3.25. In the preceding five days, the broker-dealer has handled 15% of aggregate transactions in this stock. This is an active and competitive market. The $3.25 is a valid benchmark, and compensation to the broker-dealer is 25 cents per share ($3.50 less $3.25).

7.7.2.3 Disclosure of Associated Person Compensation

Just as broker-dealers must disclose the firm's compensation from penny stock transactions, they must also disclose specific **cash compensation** paid to reps selling the security. This disclosure must be made **at or prior to receipt of the order**.

The disclosure must include cash compensation that has been or will be received. Separate disclosure must be made of the source and amount of any associated compensation made by someone other than the broker-dealer in connection with the transaction.

Promoters of penny stocks may offer cash inducements to registered representatives. For example, a promoter may offer a rep $1,000 to aggressively market a penny stock to clients. Such compensation is "in connection with the transaction" and must be disclosed, by source and amount. The source, in this case, is the promoter.

The '34 Act defines a **contingent compensation arrangement** as an agreement to pay cash or other compensation to a rep at some point following the transaction based on aggregate sales volume or other contingencies. In other words, it is a performance-based incentive related to selling a particular penny stock. Where contingent compensation arrangements exist, written disclosure must describe the basis upon which such compensation is determined.

Knopman Note: Prior to effecting any penny stock transactions for customers, a broker-dealer must share 1) the penny stock risk disclosure document, 2) the firm's and the associated person's compensation, and 3) the inside quote. The number of market makers need not be disclosed.

7.7.2.4 Penny Stock Exemption

Broker-dealers are exempt from providing the penny stock disclosures if they meet two criteria:

1. The broker-dealer earned 5% or less of its revenue in total compensation from penny stocks over the last three months and for at least 11 of the previous 12 months (the definition of total compensation includes commissions, mark-ups, and mark-downs), and

2. The broker-dealer has not been a market maker in the penny stock that is the subject of the transaction in the immediately preceding 12 months.

To qualify for the first part of the exemption, broker-dealers must keep detailed records on compensation related to penny stocks over at least the past year. The broker-dealer is allowed to exceed the 5% standard in just one month of the last year, but that month cannot be in the most recent three. This test must be performed every month. If the broker-dealer fails in one month, it can't qualify for the blanket exemption for the next two. If it fails in two consecutive months, it can't qualify for the next 11.

If a broker-dealer qualifies for the exemption, it is not subject to penny stock disclosures on any transactions. If it does not qualify, the broker-dealer may still avoid sending the risk document depending on the specific transaction. There are four penny-stock-disclosure-exempt transactions:

1. Transactions with institutional investors
2. Private placement transactions under Regulation D
3. Transactions in which the customer is the issuer or a director, officer, general partner, or 5% beneficial owner of the issuer's equities
4. Unsolicited transactions

> ***Knopman Note:*** Key exemptions from the suitability statement include: 1) unsolicited orders, 2) institutional accounts, and 3) firms who receive less than 5% of their commission revenue from penny stock trades.

7.7.3 Penny Stock Suitability

In addition to the disclosure requirements, higher suitability standards apply to recommendations or solicitations of penny stocks. A broker-dealer must reasonably determine that the transaction is suitable for the investor, given the investor's financial situation and objectives.

To that end, the broker-dealer must give the customer a written statement explaining the suitability determination. The customer must sign and date a copy. Thereafter, the firm must obtain from the customer a written agreement to go ahead with the transaction, identifying both the security and number of shares involved.

There is an exception, however, that allows customers to trade solicited penny stocks without returning a signed suitability statement. The exception is available for **established customers**, defined as:

- Customers that effected a securities transaction, or made a deposit of funds or securities, more than one year ago (e.g., customers that have held an account for one year or longer), or
- Customers who have made three purchases of three different penny stocks on three separate days within the past year

7.7.4 Penny Stock Account Statements

All customers who own penny stock must receive **monthly account statements** showing the number of shares and estimated market value of each penny stock held in their account.

The estimated market value is calculated as the highest inside bid on the last trading day to which the account statement relates, multiplied by the number of shares held in the customer's account.

Example

The account statement received by the customer in April covers the period of March 1st through March 31st. If the highest inside bid for penny stock ABC was $0.90 on March 31st and the customer owns 100 shares of ABC in their account, then the estimated market value is $90 (calculated as 100 shares multiplied by $0.90).

If there is no inside bid (since, for example, the stock is not currently being quoted), then the broker-dealer should use the weighted average price per share paid by the firm during the final five trading days of the period to which the statement relates, multiplied by the number of shares held in the customer's account. To use this method, the firm must have affected at least ten purchases of that penny stock during that five-day period.

If there is no inside bid and no weighted average price per share can be calculated, then the message "no estimated market value" can be shown on the account statement.

Knopman Note: Be sure to review the various ways to calculate the estimated market value of a penny stock.

7.8 Books and Records

Broker-dealers are subject to **books and records** requirements under SEC Rules 17a-3 and 17a-4. In brief, these rules require:

- Retention of all order tickets along with the name of the representative responsible for the account, the name of any other person who entered the order for the customer, whether the order was placed with discretionary authority, and the time the order was received

Knopman Note: Firms must maintain records of orders to buy or sell securities that include:

1. The time the order was received, and
2. The time of entry (which is when the firm transmits the order for execution)

- Records of each registered representative's employment and disciplinary history with the firm, with identification of the specific offices where each rep conducts business
- Customer account records sufficient to allow regulators to check for customer-specific suitability and know-your-customer requirements, including each customer's name, tax ID, address, telephone, date of birth, employment/occupation, annual income, net worth excluding value of primary residence, and investment objectives
- For discretionary accounts, a dated signature for each customer and a dated signature for each individual who is granted discretionary trading authority
- Any written customer complaint made against the firm or one of its reps, including complaints received by email, and records verifying that each customer has been provided notice of how and where to file complaints

Other recordkeeping responsibilities of broker-dealers include:

- Records of non-monetary compensation paid to associated persons, such as gifts or trips
- Records documenting compliance with oversight for communications with the public (e.g., advertisements)
- A listing of each principal of the firm responsible for policies and procedures
- Specific records to be maintained at each office location, for purposes of facilitating state examinations

Corresponding NASD/FINRA rules for broker-dealer books and records requirements are contained in FINRA Rule 4510.

7.8.1 Record Retention Requirements

Most records must be maintained by a firm for three years, with the first two years' records in an easily accessible location. Some records—trade blotters, cash receipts, the firm's general ledger, and customer account records—must be maintained for six years. Customer complaints are required to be maintained for four years. A broker-dealer is not required to keep a record of client documents it helped prepare (e.g., underwriting registration statements).

Knopman Note: Work-related instant messages, chats (group or individual), and text messages are all considered business communications, so the member firm must record and maintain these for the appropriate time period. If a firm is unable to do so, whether for technical or other reasons, these types of communications may not be used by employees for work purposes.

Records may be retained in paper, microfiche, or electronic formats.

Q: Which underwriting documents must a broker-dealer maintain? And for how long?

A: An underwriter must maintain all written agreements, such as underwriting agreements, agreements among underwriters, and other business records for three years.

Q: What records are broker-dealers not required to maintain?

A: Issuer documents, such as prospectuses or red herrings, which are produced in connection with underwritings and filed with the SEC, are not records the underwriter must maintain.

7.9 Insider Trading

Securities laws, such as SEC Rule 10b-5 under the Securities Exchange Act, broadly prohibit fraudulent activities of any kind in connection with the offer, purchase, or sale of securities. These provisions are the basis for many types of disciplinary actions, including actions against insider trading.

An **insider** is defined as any person who has knowledge of or access to meaningful nonpublic information about a company. Examples of insiders include corporate officers and directors, and shareholders who own more than 10% of a company's outstanding shares. However, a violation of insider trading rules is not limited to just these persons; it extends to anyone who has access to material nonpublic information and purchases or sells securities based on this knowledge. For example, if a corporate insider tips a friend about nonpublic information that is likely to have an effect on the company's share price, the friend is also in violation if a trade is made on the basis of this information. Both the **tipper** and the **tippee** have potential liability.

Constructive insiders, like outside counsel, consultants, and other contractors, are also liable for insider trading violations if the corporation employing them expects the information they access to remain confidential.

7.9.1 Misappropriation Theory

The **misappropriation theory** under SEC Rule 10b5-2 broadens liability for insider trading violations. It states that persons who misappropriate (steal) information from their employer and trade on that information in any stock, not just their employer's stock, are guilty of insider trading violations. An example of this situation is a journalist who is aware of material nonpublic information about a potential takeover because of an investigation they are conducting. Trading on this information is illegal.

7.9.2 Duty of Trust

Another scenario where individuals may have liability for insider trading is in connection with a breach of a **duty of trust**. Also under SEC Rule 10b5-2, a duty of trust or confidence applies when two people have a history of sharing sensitive information in confidence and the recipient of the information should reasonably understand that the information should be kept confidential. This allows an individual to avoid liability for insider trading if the recipient **should have known** that nonpublic information was being shared.

For example, if a husband and wife generally discuss information in confidence, the wife would not necessarily be expected to explicitly state each and every time she was sharing nonpublic information. The husband would be expected to understand that information is being shared in confidence. In theory, the wife could avoid liability if the husband trades on confidential information by demonstrating that the husband should have known the information was sensitive. If, on the other hand, the husband could demonstrate that the couple did not have a history of sharing nonpublic information and he could not have known the information was sensitive, he would not be liable.

7.9.3 Penalties for Insider Trading

Penalties for insider trading violations originate in Section 32(a) of the Securities Act of 1933 and Sections 10(b) and 24 of the Securities Exchange Act of 1934, under anti-fraud provisions against "manipulative or deceptive" devices or contrivances.

These penalties have been stiffened over the years, through multiple pieces of legislation, including **The Insider Trading Sanctions Act of 1984**, **The Insider Trading and Securities Fraud Enforcement Act of 1988**, and **The Sarbanes–Oxley Act of 2002**. The '34 Act provides for both civil and criminal penalties for insider trading and securities fraud.

7.9.3.1 Civil Penalties

Civil penalties are limited to a dollar amount equal to three times the profit gained or loss avoided by illegal insider trades. This is also referred to as **treble damages**. Control persons (i.e., supervisors) who should have known about or could have prevented the illegal activity can also be subject to treble damages.

7.9.3.2 Criminal Penalties

Criminal penalties for willful violations are limited to $5 million in fines and up to 20 years in prison. The cap on fines increases to $25 million for corporations. If the person had no knowledge of the rule or regulation that was broken, then the person cannot be subject to imprisonment.

7.9.4 Chinese Wall Policies and Procedures

The Insider Trading and Securities Fraud Enforcement Act of 1988 also requires firms to impose supervisory procedures to prevent the misuse of material, nonpublic information by employee and proprietary accounts. To comply with these requirements, firms must establish **Chinese walls** (also called **information barriers**) that prevent the free flow of material nonpublic information. In addition to written procedures, physical separation is required between departments that regularly receive inside information and a firm's trading desk.

These policies can:

- Limit access to inside information to a need-to-know basis
- Distinguish different types of inside information based on the nature of the information or where it originated
- Maintain physical barriers (locked floors, file cabinets, and office areas)
- Maintain electronic barriers (network access, file sharing, downloads, and remote login/access)
- Require proper disposal of sensitive information (shred)
- Monitor and review the communications and trading of employees and others who have access to firm information

> ***Knopman Note:*** Information barriers include both physical barriers and technologic barriers, as detailed above.

Firms that conduct investment banking, research, or arbitrage activities must maintain some form of restricted and watch lists. Typically, a **restricted list** is a list of securities in which proprietary, employee, and certain solicited customer transactions are restricted or prohibited. A **watch list** is a current list of securities that generally do not carry trading restrictions, but the trading of which is subject to close scrutiny by the firm's compliance department. The restricted list is distributed periodically throughout the broker-dealer to make employees aware of those securities that the firm is restricted or prohibited from recommending and/or trading. Both lists should include:

- The date and time the security was added to or deleted from the list, and
- The name of a contact person who can answer questions about the addition or deletion

Although the maintenance of a **rumor list** is not a required element for an adequate Chinese wall, some firms have employed these lists as part of their Chinese wall monitoring systems. Securities are generally placed on a **rumor list** when the issuer becomes the subject of rumors of an impending deal.

7.9.4.1 Proprietary and Employee Trading Reviews

Firms are required to establish procedures to review transactions that may constitute insider trading. These procedures must provide for review of securities transactions for:

- The firm
- Employees of the firm, and
- Family members of employees of the firm

For any suspicious transactions, the firm must promptly conduct an internal investigation to determine whether there were violations. A written report of these transactions must be made to the appropriate exchange by the 15th of the month following the calendar quarter in which the trade occurred.

One thing that a firm or employee *can* do while in possession of nonpublic information is accept an unsolicited order. For example, if an equity trader learns of an imminent takeover of ABC Corp, the trader can accept an unsolicited order from a customer to buy ABC Corp common stock.

> ***Knopman Note:*** If a market maker possesses inside information, it can still execute unsolicited customer orders (long or short). The market maker cannot use the inside information to solicit customer orders, to increase its proprietary positions, or in any discussions with equity research.

7.10 Regulation FD—Fair Disclosure

Regulation FD (Fair Disclosure) requires public companies to disclose material, nonpublic information to investors on an equal basis. The rule was designed to prevent selective or exclusionary disclosures from benefitting a select group of persons.

Regulation FD has virtually eliminated the practice of distributing important company news through for-analyst-only conference calls, or one-on-one company meetings with preferred analysts. It has also forced analysts to monitor a wider range of media, including the internet and social media sites, to stay abreast of breaking company news.

Regulation FD applies when the issuer, or any person acting on behalf of the issuer, discloses material, nonpublic information to:

- A broker-dealer or an employee of a broker-dealer
- An investment adviser or an employee of an investment adviser
- An investment company or an affiliated person (i.e., employee, director, or investment adviser) of an investment company, or
- An investor in the issuer's securities, in which it is reasonably foreseeable that the person will buy or sell the securities on the basis of the information.

7.10.1 Timing of Disclosures

When a company makes disclosure of nonpublic information to any of the individuals mentioned above, Regulation FD requires disclosure to all investors:

- **Simultaneously**, in the case of an intentional disclosure, or

- **Promptly** in the case of a non-intentional disclosure. Promptly is defined as within 24 hours or before the open of trading on the next business day, whichever is later.

> ***Knopman Note:*** Regulation FD requires firms to disclose sensitive information simultaneously with their intentional disclosure to research analysts. Accidental disclosure of sensitive information requires public disclosure by the later of 24 hours or the open of trading the next business day.

Example

A firm makes accidental disclosure of nonpublic information on Friday at 2:00 pm. Public disclosure is required before the open of trading on Monday.

The disclosure requirements can be met through several methods, including:

- An 8-K filing
- A generally circulated press release, or
- A prominent posting on the company's website, provided that the site is generally recognized as a channel of distribution. Also, the website must be non-exclusionary, meaning everyone must be able to view the area where the information is disseminated.

Information is **material** if there is a substantial likelihood that a reasonable investor would consider it important, or if it significantly alters the total mix of information available about a company. Information is **nonpublic** if it has not been disseminated in a manner that makes it generally available.

Examples of information that is likely considered material include:

- Earnings information
- Merger activity
- New products or discoveries
- Changes in control
- Acquisition or loss of major supplier of customer contracts
- Change in auditors
- Default on senior securities
- Stock splits or dividends
- Share repurchases/stock issuances
- Bankruptcy

Example

A company holds a meeting with 10 large shareholders and three buy-side analysts to discuss specs of a new product category that it plans to enter into. This is a violation of Regulation FD because the company did not make simultaneous public disclosure.

Unit Exam

1. Market centers that trade in NMS securities must publish electronic reports on execution quality. What is the required frequency of these reports?

   A. Weekly
   B. Monthly
   C. Quarterly
   D. Annually

2. Which person has responsibility for posting on the internet a market center's monthly files on execution quality?

   A. The chief technology officer
   B. The chief financial officer
   C. The chief compliance officer
   D. The designated participant

3. A Reg NMS 605 report would exclude which of the following orders?

   A. A market order to purchase 100 shares
   B. A market order to sell short 300 shares
   C. A market order to sell 1,000 shares
   D. A limit order to purchase 550 shares

4. Which of the following order types are included in Reg NMS 606 reports?

   A. Directed limit orders
   B. Not held orders
   C. Non-directed market orders
   D. All-or-none orders

5. Which of the following activities would most likely be deemed a violation?

   A. A trader splits an order into multiple smaller orders for faster execution
   B. A market maker advertises more trading volume in a security than the amount actually executed
   C. An unintentional self-trade between two trading desks at the same firm
   D. A firm executes agency trades for customers ahead of publishing a research report

6. A large trader who has previously filed a Form 13H will qualify for inactive status if they did not cross the large trader threshold at any time during the previous:

   A. month.
   B. quarter.
   C. six months.
   D. calendar year.

7. As it relates to non-NMS equity securities, a qualified block positioner is best described as a market maker that is eligible to trade in blocks of:

   A. at least 10,000 shares.
   B. a value of $200,000 or more.
   C. at least 10,000 shares and at least $100,000 in market value.
   D. at least 10,000 shares and at least $200,000 in market value.

8. All customers who own penny stock must receive monthly account statements showing the number of shares and estimated market value of each penny stock held in their account. What is the estimated market value based upon?

   A. The most recent execution price in the security by the broker-dealer carrying the account
   B. The most recent execution price in the security by any broker-dealer
   C. The inside offer for the security
   D. The inside bid for the security

9. If a member possesses material nonpublic information about an imminent block trade, what type of customer order, executed prior to the block trade, is not generally allowed?

   A. All-or-none
   B. Fill-or-kill
   C. Market
   D. Discretionary

Unit Exam (Continued)

10. Under the penny stock rules, what is required for an investor to be considered an established customer?

    A. Having an IRA open for one year
    B. Trading at least three penny stocks on three different days within the past year
    C. Signing an options risk disclosure statement
    D. Signing a margin agreement

Unit Exam—Solutions

1. **(B)** Reg NMS Rule 605 execution quality reports must be made available to the public monthly.
2. **(D)** Each market center must arrange with a single entity (a person or firm) to act as the market center's designated participant. The designated participant maintains the market center's identification files and website.
3. **(B)** Short sales are generally excluded from Reg NMS Rule 605 monthly reports by market centers.
4. **(C)** Rule 606 reports apply to non-directed market orders and limit orders. The reports do not include directed orders, since those orders are filled through the venue of a customer's choosing and customer orders with special instructions (e.g., all or none and not held orders) are also excluded.
5. **(B)** A market maker is prohibited from advertising more trading volume in a security than the amount actually executed. All the other activities would be permitted. Choice A is allowed as a trader can split an order for a valid reason, but not to increase the commissions they will receive. For Choice C, as long as broker-dealers have procedures in place to review and prevent self-trades, an unintentional self-trade is not considered a violation. For Choice D, broker-dealers are allowed to execute agency trades for customers ahead of publishing a research report.
6. **(D)** Large traders must identify themselves using a Form 13H. However, "inactive status" is available for large traders who did not cross the large trader threshold at any time during the previous full calendar year. Once inactive, a large trader need not file Form 13H unless and until its transactions are equal to or greater than the threshold level.
7. **(C)** A block trade is typically defined as having at least 10,000 shares or a value of $200,000 or more. An exception is the FINRA definition of a block trade in OTC equities, which is a trade of at least 10,000 shares AND at least $100,000 in market value.
8. **(D)** The estimated market value is calculated as the highest inside bid on the last trading day to which the account statement relates, multiplied by the number of shares held in the customer's account.
9. **(D)** Front-running does not occur when a customer order is traded unrelated to the material nonpublic information received. However, the member must obtain the customer's consent for the trade, which generally is not the case in discretionary orders.
10. **(B)** An investor is considered an established customer if she has traded three different penny stocks on three different days within the past year.

8. Options Contracts and Strategies

Options are financial instruments that provide investors an opportunity to speculate on changing prices or protect existing positions. An **option** is a derivative contract because its value is derived from the price of another asset, called the **underlying asset**. These contracts—and options contracts are legal, binding contracts—bring two parties together under standardized terms and conditions. All option contracts have a buyer and a seller, with each party bearing certain rights and obligations. This chapter will discuss the different options contracts that exist, the risks and opportunities for buyers and sellers of options contracts, and the strategies involved in the options marketplace.

> ***Knopman Note:*** Options questions on the Series 57 will focus on complex positions, including spreads, straddles, and combinations. Answering questions on complex strategies requires a strong understanding of options fundamentals, including single options. Candidates who need a review of fundamental options positions should read the options addendum in the www.knopman.com Training Center before reviewing this chapter.

8.1 Spreads

A **spread** position involves an investor simultaneously making an opening purchase (buying) and an opening sale (writing) of the same number of contracts on the same underlying asset within the same option class (calls or puts) but from different series. If the spread involves two calls (one bought, one sold), it is a **call spread**. Conversely, if the spread involves two puts (one bought, one sold), it is a **put spread**.

In many cases, brokers will execute the spread as a **unit** in a single transaction, as opposed to in one opening purchase and one opening sale (though, if executed separately, the position retains the same characteristics). All spreads are moderate positions and allow investors to achieve either bullish or bearish exposure.

> ***Knopman Note:*** The **type of spread** is determined by the contract feature that is different.
>
> - If the strike prices are different, but the expiration months are the same, the spread is a ***vertical*** or ***price*** **spread**.
> - If the strike prices are the same, but the expiration months are different, the spread is a ***horizontal*** or ***calendar*** **spread**.
> - If both the strike prices and the expiration months are different, the spread is a ***diagonal*** **spread**.

Spreads can either be long or short, as described in the next section.

8.1.1 Long (Debit) Spreads

A **long spread**, or a **debit spread**, is a position that requires a net debit (or net cash outflow) to be established. Because all spreads have one position that is being bought and one position that is being sold, a debit spread indicates that the opening purchase will cost more (have a higher premium) than the simultaneous opening sale (which will have a lower premium). As discussed later, the option with the higher premium is sometimes referred to as the **dominant position**.

A long (debit) spread does not indicate whether the investor is bullish or bearish; it only indicates that the investor bought the more expensive option and sold a less expensive one.

Once an investor has entered into a debit spread and paid a net premium, the investor hopes that the spread, or the difference between the two premiums, will widen. If the spread does widen, the investor will earn a profit on the position. This results from the fact that in a debit spread, the more expensive option was purchased in the opening leg and will be sold in the closing leg.

Example: Debit Call Spread (Bullish)

An investor enters into a debit call spread, as shown below.

Buy or Sell	Option Contract	Premium	Note	Net
Buy	1 ABC Jan 50 call	($-7)	The opening *purchase* requires the client to pay $700 (7 × 100 per share) to buy the contract.	($-700)
Sell	1 ABC Jan 60 call	$+4	The opening *sale* will result in a credit (premium) of $400 (4 × 100) earned at the time the contract is written.	+$400
Debit/Credit: This position is a debit spread because it results in a net payment, or debit, of $300.				($-300)
Bullish/Bearish: This position is bullish because the investor is mostly buying calls, and buying calls is bullish. Described differently, the option with the higher premium determines whether the position is bullish or bearish.				

An investor profits in a debit spread from the **widening of premiums**. The example below illustrates the closing of the position at expiration for intrinsic value when the market value of ABC stock is $62. **Closing the position** means that the investor is offsetting each leg—the opening purchase will be offset with a closing sale, while the opening sale will be offset with a closing purchase. Closing the position does not involve exercise of the option; it is about liquidating the position.

Buy or Sell	Option Contract	Opening Premiums	Closing Premiums Investor unwinds when the MV of ABC is $62.
Buy	1 ABC Jan 50 call at 7	($-700)	To close, sell Jan 50 call for $+1,200, calculated as $12 ITM amount between 62–50 × 100 shares per contract.
Sell	1 ABC Jan 60 call at 4	$+400	To close, buy Jan 60 call for ($200), calculated as the $2 ITM amount between 62–60 × 100 shares per contract.
($-300) The premium spread was $300 when the position was opened.			$+1,000 At liquidation, the difference in premiums has widened from $300 to $1,000.
The overall profit on the position is $700, which results from the net premium of $300 paid to open the position and the net premium of $1,000 received from closing the position.			

Knopman Note: When creating a call spread position, the call option with the lower strike price will be the dominant position, which the investor's attitude is based upon. For example, if an investor buys a May 30 call and sells a May 40 call, the May 30 call would be the dominant position (since it has the lower strike price) and it is a bullish position (since buying calls is the dominant position).

An investor loses profit in a debit spread if the **premiums narrow**. The example below illustrates the expiration of a debit call spread that has lost in value.

Buy or Sell	Option Contract	Opening Premiums	Closing Premiums The market value of ABC is $25. Investor allows both positions to expire.
Buy	1 ABC Feb 30 call at 6	($-600)	Call is out of the money and expires.
Sell	1 ABC Feb 35 call at 3	$+300	Call is out of the money and expires.
($-300) The premium spread was $300 when the position was opened.			Neither option has value.
The overall loss on the position is $-300. The investor loses opening net debit.			

Knopman Note: An investor with a debit call spread will incur a loss of the aggregate premiums if both options expire.

Example: Debit Put Spread (Bearish)

An investor can also enter into a debit put spread, as shown below.

Buy or Sell	Option Contract	Premium	Note	Net
Buy	1 ABC Apr 20 put	($-5)	The opening *purchase* requires the client to pay $500 (5 × 100 per share) to buy the contract.	($-500)
Sell	1 ABC Apr 15 put	$+3	The opening *sale* will result in a credit (premium) of $300 (3 × 100) earned at the time the contract is written.	+$300
Debit/Credit: This position is a debit spread because it results in a net payment, or debit, of $200.				($-200)
Bullish/Bearish: This position is bearish because the investor is mostly buying puts, and buying puts is bearish. The long put has the higher premium, further confirming the bearish position.				

Debit Spread Maximum Gain, Maximum Loss, and Breakeven

Investors use debit spreads to establish the potential to profit on a long option position, but with a reduced cost. The premium paid for the long option position is reduced by the premium received from the sale of another option. There is, however, a tradeoff for the use of this cost-reduction strategy; a limit on the profit potential is set by the strike price of the short option position.

The maximum gain, maximum loss, and breakeven points of debit spread positions will be reviewed through the examples below.

Example: Debit Call Spread (Bullish)

The example below illustrates the investor's outcome when the market value of ABC is $52 at expiration.

Buy or Sell	Option Contract	Opening Premiums	Closing Premiums Investor unwinds spread at expiration when the market value of ABC is $52.
Buy	1 ABC Feb 30 call at 6	($-600)	$+2,200 The long 30 call makes 22 when the market value of ABC is 52.
Sell	1 ABC Feb 35 call at 3	$+300	($1,700) The short 35 call loses 17 when the market value of ABC is 52.
		($-300)	$+500
	The overall profit on the position is $+200. The $300 opening debit is offset by the $500 closing credit. This $200 represents the most an investor can make on this particular spread. Even if the stock increases to, for example, $100, the profit will still be $200.		

Knopman Note: Investors who establish debit call spreads are moderately bullish because they limit their potential upside to make the position less costly. They give up any profit above the strike price of the short call.

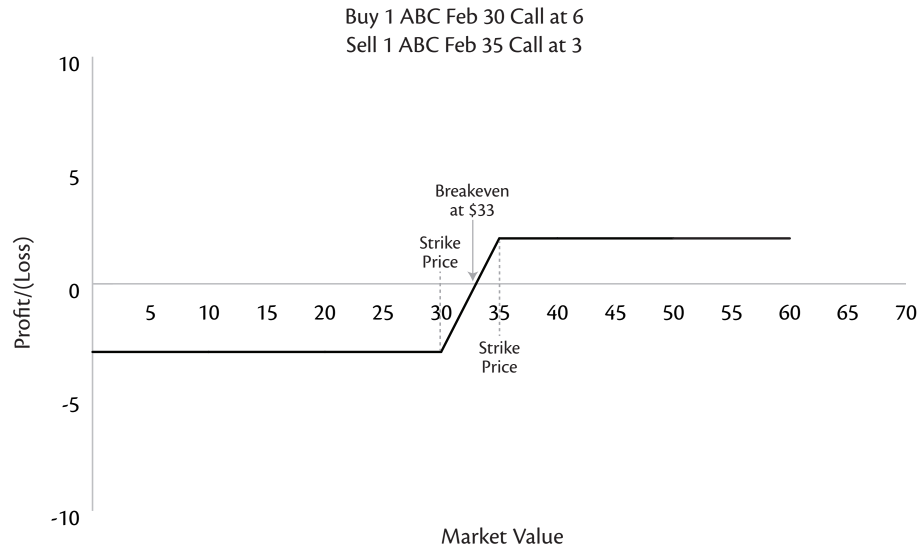
Debit (Bull) Call Spread Overview	
Market View	Moderately bullish
When to Use	Moderately bullish Long calls alone are too expensive
Max Gain	Limited Short Call Strike – Long Call Strike – Net Premium
Max Loss	Net premium paid (both options expire out of the money)
Breakeven	Strike of Long Call + Net Premium Paid
Profit or Loss at Given MV (for in-the-money options)	Profit on Long Call – Loss on Short Call (if any) – Net Premium Paid

The maximum gain for a debit (bull) call spread occurs when both options expire in the money and are exercised or closed out at intrinsic value. If exercised, the investor will buy the stock at the lower strike and cover the exercise assignment by selling the shares just acquired at the short call's higher strike. The investor cannot make more than the higher strike price of the short call because of the obligation to sell, regardless of how high the market value of the underlying stock may rise. Once the market value of the stock exceeds the higher strike, every dollar gained on the long call is offset by the exact loss to the investor on the short call.

If at expiration the market value of the stock is between the strikes, the long call will be in the money and exercised (or liquidated), and the short call will expire out of the money.

If at expiration the market value is below both strike prices, then both options will expire worthless and the loss will be the premium paid (i.e., net debit).

The diagram below illustrates the profit potential of the debit call spread described in the previous example.



Maximum Gain: $2 per share at any market value of $35 or higher
Maximum Loss: $3 net premium at any market value of $30 or lower
Breakeven: At a market value of $33

Example: Debit Put Spread (Bearish)

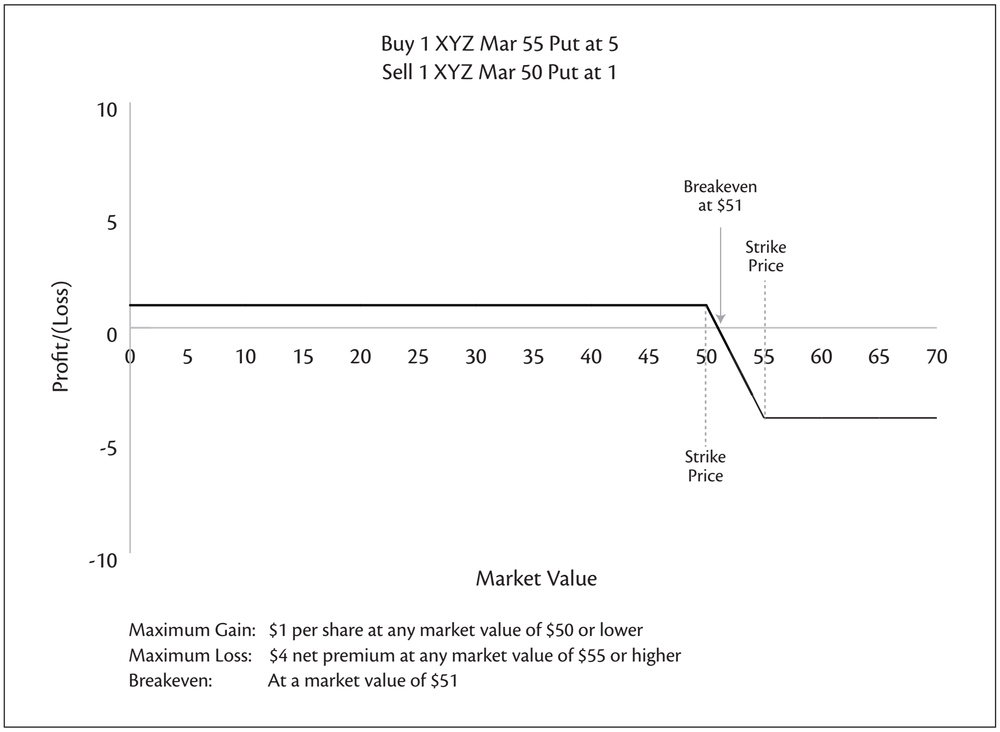
The two examples below illustrate the investor's outcome when the market value of ABC is $47 and $75 at expiration.

Buy or Sell	**Option Contract**	**Opening Premiums**	**Closing Premiums** **The investor unwinds spread at expiration for intrinsic value when the market value of XYZ is $47.**
Buy	1 XYZ March 55 put at 5	($-500)	The long 55 put makes 8 when the market value of ABC is 47. $+800
Sell	1 XYZ March 50 put at 1	$+100	($-300) The short 50 put loses 3 when the market value of ABC is 47.
		($-400)	$+500 When the spread is liquidated, the difference in premiums has **widened** from 4 to 5.
	The overall profit on the position is $100. The $400 opening debit is offset by the $500 closing credit.		

Buy or Sell	Option Contract	Opening Premiums	Closing Premiums The investor lets both options expire when the market value of XYZ is $75.
Buy	1 XYZ March 55 put at 5	($-500)	Put is out of the money and expires.
Sell	1 XYZ March 50 put at 1	$+100	Put is out of the money and expires.
	($-400) The premium spread was $400 when the position was opened.		Neither option has value.
	The overall loss on the position is $-400. The investor loses opening net debit.		

Debit (Bear) Put Spread Overview	
Market View	Moderately bearish
When to Use	Moderately bearish Long puts alone are too expensive
Max Gain	Limited Long Put Strike – Short Put Strike – Net Premium
Max Loss	Premium paid (both options expire out of the money)
Breakeven	Strike of Long Put – Net Premium Paid
Profit or Loss at Given MV (in the money)	Profit on Long Put – Loss on Short Put (if any) – Premium

The chart below illustrates the performance of the position from the previous example.



> ***Knopman Note:*** A put spread is 1) bearish and 2) a debit when the investor purchases a put contract with a higher strike price and sells a put contract with a lower strike price.

8.1.2 Short (Credit) Spreads

A **short spread**, or a **credit spread**, is a position that delivers a net credit (or net cash inflow) when it is opened. This results when the opening sale generates excess premium over the cost of the opening purchase. Investors can open credit spreads that are bullish (short put spread) or bearish (short call spread). Investors who open a short or credit spread want the position to **narrow**. If the position does narrow, the investor will keep some of the opening net premium, therefore profiting on the position.

> ***Knopman Note:*** A trick to remember whether an investor hopes for a spread to widen or narrow is to look at the number of letters in the words.
>
> - Debit spreads widen: "Debit" has five letters; "widen" has five letters.
> - Credit spreads narrow: "Credit" has six letters; "narrow" has six letters.

Example: Credit Call Spread (Bearish)

An investor with a bearish market view enters into a credit call spread, as shown below.

Buy or Sell	Option Contract	Premium	Note	Net
Buy	1 ABC Jan 70 call	($3)	The opening *purchase* requires the client to pay $300.	($-300)
Sell	1 ABC Jan 60 call	$+8	The opening *sale* results in the receipt of premium of $800.	$+800
Debit/Credit: This position is a credit spread because it results in a net receipt, or credit, of $500.				$+500
Bullish/Bearish: This position is bearish because the investor is mostly selling calls, and selling calls is bearish. To confirm the bearish position, notice that the short call has the higher premium.				

Example: Credit Put Spread (Bullish)

An investor can also enter into a **credit put spread**, as shown below.

Buy or Sell	Option Contract	Premium	Note	Net
Buy	1 ABC Apr 80 put	($-9)	The opening *purchase* requires the client to pay $900.	($-900)
Sell	1 ABC Apr 95 put	$+23	The opening *sale* results in the receipt of premium of $2,300.	$+2,300
Debit/Credit: This position is a credit spread because it results in a net receipt, or credit, of $1,400.				$1,400
Bullish/Bearish: This position is bullish because the investor is mostly selling puts, and selling puts is bullish. This is also confirmed by the short put having the higher premium.				

An investor that establishes a credit spread is profitable if the **spread narrows**. The best case is if the spread narrows all the way to zero, which occurs when both options are out of the money.

The example below shows the spread narrowing when the market value is $30 at expiration.

Buy or Sell	Option Contract	Opening Premiums	Closing Premiums Investor unwinds at expiration at intrinsic value when the market value of ABC is $30.
Buy	1 ABC Feb 20 put at 4	($-400)	Put is out of the money and expires worthless.
Sell	1 ABC Feb 35 put at 12	$+1,200	Investor closes with a closing purchase at ($-500), calculated as $5 ITM amount between 30–35 × 100 shares per contract.
	$800 The spread was $800 when the position was opened.		($-500) At liquidation, the difference in net premiums has narrowed from $800 to $500.
	The overall profit on the position is $+300, which results from the $800 opening credit minus the $500 closing debit.		

Knopman Note: A bear call spread is established with two positions:

1. Selling a call with a low strike price, and
2. Buying a call with a higher strike price

It is also referred to as a "credit call spread." The market view of this position is bearish.

Credit Spread Maximum Gain, Maximum Loss, and Breakeven

Credit spreads are used to reduce the risk of a single short option position. By also buying an option, the investor can limit the risk of the position substantially. The tradeoff for the risk reduction is the investor's cost of protection, which reduces the income received from writing an option.

Credit call and credit put strategies and their maximum gains, maximum losses, and breakeven points will be reviewed in the examples below.

Example: Credit Call Spread (Bearish)

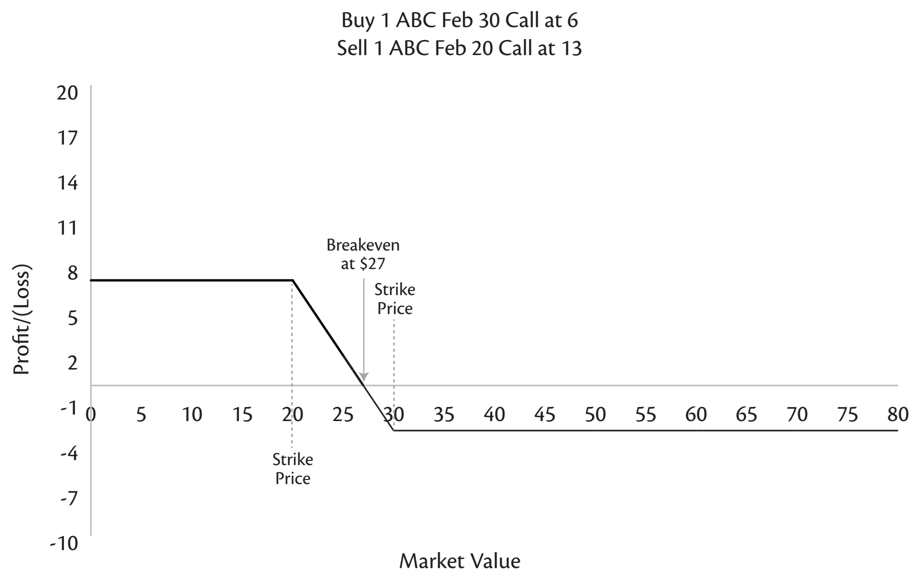
The example below illustrates the investor's outcome when the market value of ABC is $10 at expiration.

Buy or Sell	Option Contract	Opening Premiums	Closing Premiums Investor unwinds spread at expiration when the market value of ABC is $10.
Buy	1 ABC Feb 30 call at 6	($-600)	Call is out of the money and expires.
Sell	1 ABC Feb 20 call at 13	$+1300	Call is out of the money and expires.
		$700	Neither option has value. When the spread is liquidated, the difference in premiums has **narrowed** from 7 to 0.
	The overall profit on the position is $+700. The investor keeps the opening net credit.		

In a **credit call spread**, the investor achieves maximum gain if the underlying asset declines in price and both options expire worthless. If the market moves upward against the investor, the losses on the position are limited by the long call.

Credit (Bear) Call Spread Overview	
Market View	Moderately bearish
When to Use	Produce income
Max Gain	Limited Net premium earned at open
Max Loss	Limited Long Call Strike – Short Call Strike + Net Premium Earned
Breakeven	Strike of Short Call + Net Premium Earned
Profit or Loss at Given MV (once short call is in the money)	Profit on Long Call – Loss on Short Call + Net Premium

The payout structure of the previous example's position can be seen below.



Maximum Gain:	$7 per share at any market value of $20 or lower
Maximum Loss:	$3 per share at any market value of $30 or higher
Breakeven:	Market value of $27

Example of Suitability

GNG has a market value of $98. Mike believes GNG will trend downward but wants to limit his potential exposure if he is wrong. His second investment objective is to produce income.

A credit call spread (bear call spread) would be a good choice for Mike:

Buy or Sell	Option Contract	Opening Premiums
Sell	1 GNG Aug 95 Call	$+600
Buy	1 GNG Aug 105 Call	$-100
		$+500

If GNG falls below 95, both options will expire out of the money and Mike keeps the net premium ($500).

But If GNG rises above 105, Mike will receive an exercise assignment against his short 95 call. His loss on the stock will be limited to $10 per share because he can buy the stock he must deliver at $95 by exercising his long call for the right to buy the stock at 105. His loss on the stock is offset by the net $5 premium earned for a total loss of $5 per share. Regardless of how high the stock price moves, the maximum loss is limited to $5 per share because of the dollar-for-dollar offset.

The use of a credit call spread allows Mike to generate income from the premium received for writing a call, but removes the unlimited risk associated with uncovered call writing.

Mike's breakeven is $100. His position is profitable between 95 and 100, and Mike takes losses between 100 and 105.

In a **credit put spread**, an investor sells a put with a higher strike and buys a put with a lower strike. Because the put with the higher strike price has the higher premium, the result is a net credit to the investor's account. The investor achieves maximum gain if the underlying asset increases in value and both options expire worthless. The losses on the position are limited by the short put, which can be exercised if the long put receives an exercise assignment.

Credit (Bull) Put Spread Overview	
Market View	Moderately bullish
When to Use	Produce income
Max Gain	Limited Net premium at open
Max Loss	Limited Long Put Strike – Short Put Strike + Net Premium
Breakeven	Strike of Short Put – Net Premium
Profit or Loss at Given MV (long put is in the money)	Profit on Long Put – Loss on Short Put (if any) – Net Premium

Example of Suitability

When the market value of GNG is $98, Gerald believes the stock is poised to appreciate more. He is interested in generating some current income but also wants to limit his potential loss on the position.

A credit put spread may be appropriate:

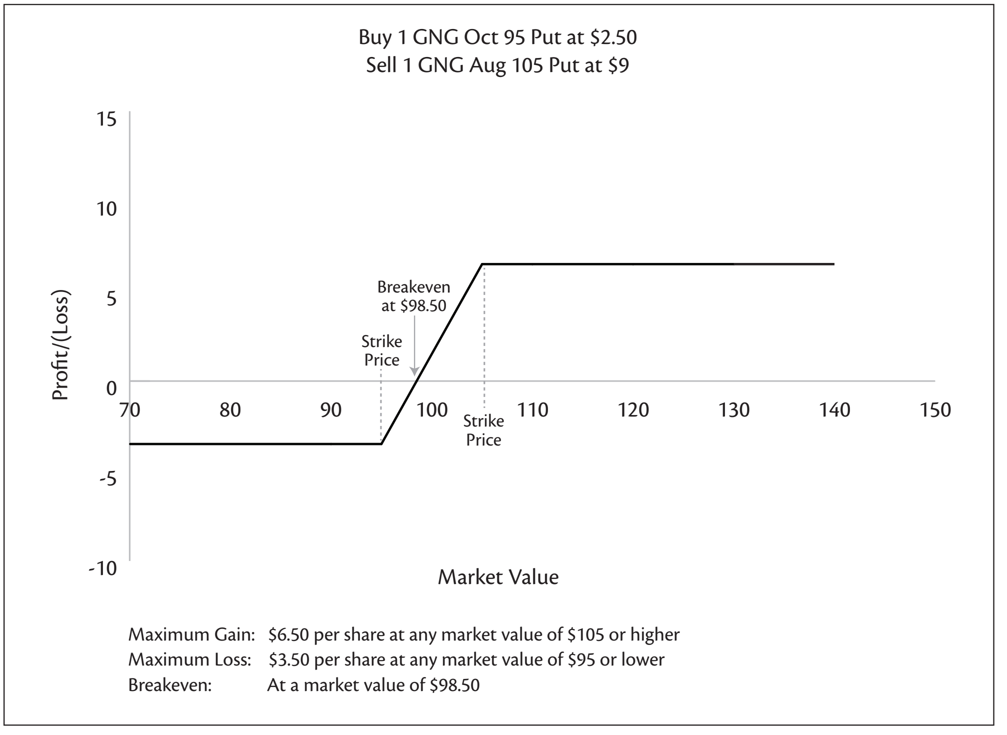
Buy or Sell	Option Contract	Opening Premiums
Buy	1 GNG Oct 95 Put	$2.50 (debit)
Sell	1 GNG Aug 105 Put	$9 (credit)
	Total	**$6.50 (net credit)**

If GNG rises above 105, both options will expire out of the money and Gerald keeps the net premiums ($650).

If GNG falls below 95, both options are in the money. Gerald will receive an exercise assignment on the short put and must purchase the stock at $105. He can then exercise his long put and sell the 100 shares he acquired at $95 for a $10 loss on the stock. The loss on the stock is offset by the $650 net premium received for an overall loss of $3.50 per share ($350 total). This is the most Gerald can lose on the position.

Gerald's breakeven is $98.50. At that price the loss on the short put will be exactly offset by the premiums received.

The payout structure of Gerald's position, a credit put spread, can be seen below.



Knopman Note: Here is a summary of key spread items:

The dominant position is always the position with the higher premium. It indicates whether the spread is bullish or bearish and is also used to find the breakeven point.

To find the breakeven, use the strategy of "call up, put down." For calls, add the net premium to the strike price of the dominant position—call up. For puts, subtract the net premium from the strike price of the dominant position—put down.

When asked to find the maximum gain (i.e., maximum revenue) or maximum loss, always include the premiums in the calculation. *Note that premiums are still considered even if the question asks one to exclude fees.* The premium is not a fee—it is the market price of the option.

Knopman Note: A **butterfly spread** is made up of four options, all with the same expiration, three with different strike prices, for example, buy 1 Oct 50 call, sell 2 Oct 60 calls, and buy 1 Oct 70 call. Therefore, a two-option position could not be a butterfly spread.

Also note that a butterfly spread consists of two contracts on the outside and two contracts in the middle—e.g., Buy 1 50 call, Sell 2 60 calls, Buy 1 70 call. Described differently, it is a 1-2-1 position, **not** a 2-1-2 position.

8.2 Straddles

A **straddle** is an options strategy that uses options from both the call class and the put class simultaneously, with each option having the same strike price and expiration. Investors can use long or short straddles to achieve specific exposure and goals.

> ***Knopman Note:***
>
> *Q:* How does a straddle differ from a spread?
>
> *A:* A straddle involves options of two classes (one call, one put) on the same side of the market (both long or both short), whereas a spread position only uses options from one class (two calls, or two puts) on opposite sides of the market (one long, one short).

8.2.1 Long Straddle

A **long straddle** is established with two options: a long call and a long put with the same underlying asset, strike price, and expiration. This position will profit if the underlying asset increases or decreases in value; the key is that the price of the underlying asset must change. The long straddle is referred to as a **volatility play**.

Investors use long straddles when they expect a large price change, but are unsure in which direction the move will be—the price may increase a lot, or the price might fall a lot, but the investor does not believe the stock will remain flat.

For example, an investor may use a long straddle if a company is expecting a major court decision or shareholder vote that will materially impact the business. If the outcome is in the company's favor, the stock will shoot upward, and if the outcome is not in the company's favor, the stock will tank. The long straddle allows potential profit for the investor in either outcome.

As with all long option positions, the long straddle is subject to time decay, so the upward or downward price move must occur prior to expiration for profitability.

> ***Knopman Note:***
>
> *Q:* What type of investor should buy a straddle?
>
> *A:* An investor who expects increased volatility should enter a long straddle (buy a call, buy a put). The long straddle is ***not*** bullish; it is a volatility play.

Example

Perry has identified a company (BUX) that is in major litigation. BUX's stock price is currently $17. If the company wins the case, he expects the stock price to soar, but if the case is lost, he expects the stock price to fall dramatically. What options strategy can he use to profit regardless of the litigation outcome?

Perry could enter into a long straddle, as shown below.

Long Straddle		
	Option	**Premium**
Position 1	Buy 1 BUX Aug 17 Call	($-0.75)
Position 2	Buy 1 BUX Aug 17 Put	($-0.55)
	Total Cost	**($-1.30)**

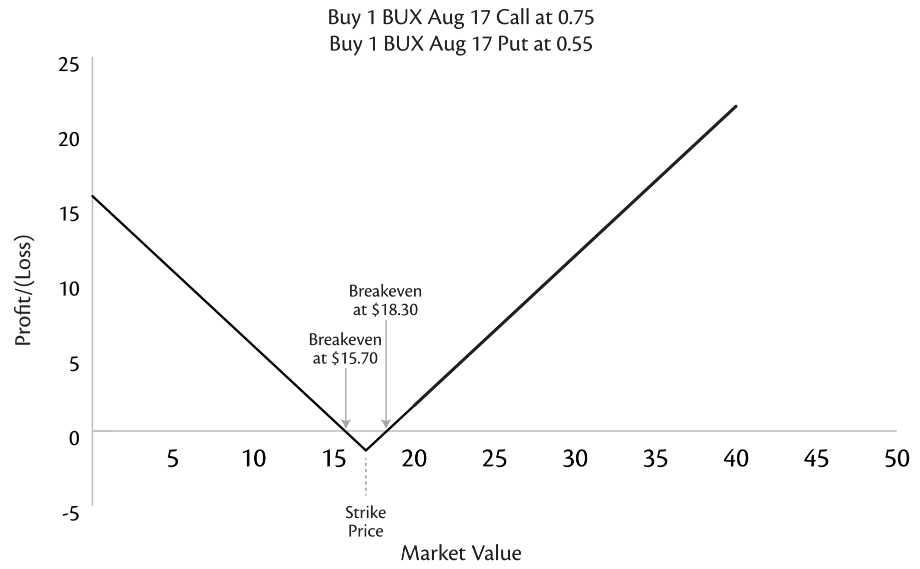
If the lawsuit is won and the stock moves upward, Perry will exercise the in-the-money call and let the out-of-the-money put expire. If the company loses the case and the stock tanks, Perry will exercise the in-the-money put and let the out-of-the-money call expire worthless.

To break even, Perry must recover the aggregate premiums. If the stock appreciates, Perry breaks even at $18.30 and begins to profit above that. If the market value declines, Perry breaks even at $15.70 and begins to profit as it continues to fall.

What is the worst-case scenario for Perry? If the court does not issue a ruling in August, and instead indicates the judgment will be handed down in September, Perry's options could both expire worthless resulting in the loss of both premiums.

To summarize, Perry breaks even at $18.30 and $15.70; above $18.30 and below $15.70 he makes money because there is enough volatility to offset the premiums paid. Between $15.70 and $18.30 Perry loses money, as there is not enough volatility to offset the premiums paid.

The payout structure of the long straddle from the previous example is shown below. Straddles take a V shape, where the point reflects the maximum loss on the position.



Maximum Gain: $15.70 at a market value of zero if the stock falls; unlimited if the stock rises
Maximum Loss: $1.30 at a market value of $17
Breakeven: At market values of $15.70 and $18.30

Long Straddle Overview	
Market View	Increased volatility (the position is not directional)
When to Use	Sharp change in value of the underlying asset (either up or down)
Max Gain	MV increases: Unlimited (call) MV decreases: Substantial (Put Strike – Total Premiums Paid)
Max Loss	Net premiums (both options expire out of the money)
Breakeven (there are two)	MV increases: Call Strike + Total Premiums Paid (call) MV decreases: Put Strike – Total Premiums Paid (put)
Profit or Loss at Given MV (in the money)	MV increases: MV – Call Strike – Total Premiums Paid MV decreases: Put Strike – MV – Total Premiums Paid
Volatility	Positive
Passage of Time	Negative

Knopman Note: Straddles have two breakevens, both call up and put down.

8.2.2. Short Straddle (Straddle Writing)

A **short straddle** has the opposite view of the long straddle and is for investors who expect the underlying asset's price to remain flat or within a narrow trading range. To enter a short straddle, the investor will write a call and a put option on the same underlying asset, each with the same expiration and strike price. The short straddle offers limited rewards but unlimited risk.

Knopman Note: An investor who expects little volatility (i.e., flat markets) should enter into a short straddle position (short call and short put). A short combination, similar to a straddle, would also achieve the same effect.

Example

Sam believes the stock of XYZ Conglomerate, which is currently $27, is likely to remain flat for the rest of the year. She wants to enter a position that will earn income if her prediction is accurate. Which options strategy may be appropriate?

Sam can write a short straddle, as shown below.

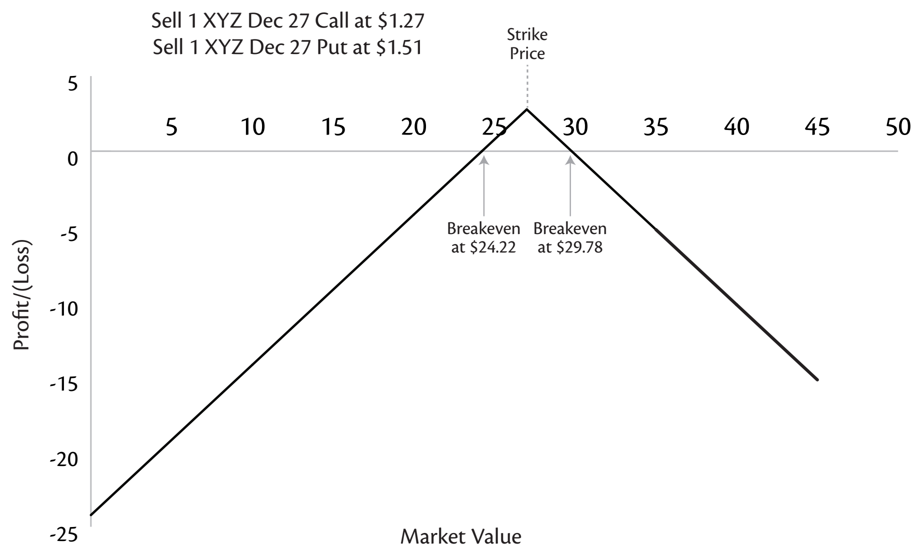
Short Straddle		
	Option	**Premium**
Position 1	Sell 1 XYZ Dec 27 Call	$1.27
Position 2	Sell 1 XYZ Dec 27 Put	$1.51
	Total Premiums	**$2.78**

At the end of the year, if XYZ remains at $27 per share, Sam will profit because both options will expire out of the money. She will retain the total premiums of $278.

If, however, XYZ has moved up in value, the call will be exercised; if XYZ falls in value, the put will be exercised.

The $2.78 in premiums collected provide a buffer from volatility. If the stock moves exactly $2.78 in either direction—to $29.78 or $24.22—the customer breaks even. If the stock moves above $29.78 or below $24.22, the customer loses money because the combined premiums are not enough protection. Between $24.22 and $29.78, the customer makes money.

The profit profile of Sam's position is below. A short straddle is an upside-down V shape, with the point representing the maximum gain, achieved at the strike price.



Maximum Gain: $2.78 at a market value of 27
Maximum Loss: $24.22 at a market value of zero if the stock falls; unlimited if the stock rises
Breakeven: At market values of $24.22 and $29.78

Short Straddle Overview	
Market View	Neutrality (low volatility)
When to Use	Little price movement in the underlying asset expected
Max Gain	MV remains at strike: Total Premiums Earned
Max Loss	MV increases: Unlimited (short call) MV decreases: Put Strike – Total Premiums Received (short put)
Breakeven (there are two)	MV increases: Call Strike + Total Premiums Received (call) MV decreases: Put Strike – Net Premium (put)
Profit or Loss at Given MV (in the money)	MV increases: Call Strike – MV + Net Premium MV decreases: MV – Put Strike + Net Premium
Volatility	Negative
Passage of Time	Positive

Knopman Note: If the investor enters a straddle (long or short) with options that have different strike prices—e.g., a higher call strike and a lower put strike, or vice versa—the position is called a **strangle** or a **combination**. A long or short combination has the exact same attitude as a long or short straddle. For example, a long combination, like a long straddle, speculates that the stock will be volatile.

Knopman Note: Here are a few key points to know about complex orders, including spreads and straddles:

- Attitude of spreads v. straddles:
    - Spreads allow an investor to take a moderate position on a security. If, for example, an investor is bullish on a stock but believes gains will be only modest, he could enter a debit call spread, which will offer limited upside, but at a lower cost than buying a call outright.
    - Straddles allow investors to bet on the volatility of a stock, not on the direction. For example, an investor who expects a stock to stay flat over a period of time could sell a straddle. An investor with a market view on a security (bullish or bearish) would not create a spread.
- Creating straddles and spreads:
    - Straddles involve “buying both” or “selling both,” that is, both calls and puts. Therefore, an investor who is already long a call could buy a put to create a straddle.
    - Spreads, on the other hand, involve two calls or two puts—buying one and selling one. For example, an investor who is long a put and wants to create a spread would need to sell a put.

8.3 Index-Based Options

An **index-based option** is an option contract whose value is not derived from the value of an underlying share of stock but is instead based on the closing value of an index or group of securities (e.g., the S&P 500). There are many index options contracts, all referencing a wide array of underlying indices, including broad- and narrow-based, domestic and international, sector-specific, and indices based on volatility (e.g., VIX). Examples of index-based options include:

Examples of Index Options
Broad • SPX (S&P 500) • OEX (S&P 100 Index Options) • NDX (Nasdaq 100: 100 of the largest non-financial securities listed on the Nasdaq Stock Market) • DJX (The Dow Jones Industrial Average) • RUT (Russell 2000: Small-cap segment)
Narrow • An index based on nine or fewer underlying components
Foreign • MXEA (MSCI EAFE: International equity performance in Europe, Australasia, and the Far East)
Volatility • VIX (The VIX Index is based on expected stock market volatility)

Index options operate in substantially the same way as equity options, with each contract providing similar rights to buyers and obligations to sellers. One difference is that index options settle for cash (meaning the parties do not transfer any underlying securities, but instead deliver the cash value of the contract on exercise). The amount delivered on exercise is called the **exercise settlement amount**.

> ***Knopman Note:*** Index options are always settled for cash.

8.3.1 Exercise Settlement Amount and the 100× Multiplier

If an index option is exercised, the parties do not actually exchange the underlying shares in the index; instead, index options settle for cash. This means the parties use the strike price and the index's closing value to determine the proceeds due to the exercising party. This amount is then adjusted by a contractual multiplier of 100× to determine the final exercise settlement amount due to the owner of the option.

One of the most actively traded index options is the **SPX contract**, which is based off the closing value of the S&P 500 Index. SPX options allow investors to achieve market exposure in the overall US equity markets, hedge their portfolios, and produce income.

The Employee Retirement Income Security Act (ERISA) is a federal law that protects private-sector retirement plans such as 401(k) plans. Importantly, an ERISA plan is permitted to trade options (e.g., protective puts or covered calls) as long as it meets the investment criteria of the plan.

> ***Knopman Note:*** Index options can be purchased in an ERISA-sponsored plan provided they conform with the plan's investment policy and that no margin is required (since ERISA accounts must be cash accounts). For example, selling uncovered calls requires a margin deposit and therefore would be prohibited.

8.3.2 VIX Options

Another popular index option available to investors is the Chicago Board Options Exchange (CBOE) Volatility Index, or the **VIX Index**. The VIX measures market sentiment and expected volatility in the S&P 500 over the next 30 days. Put differently, the VIX Index measures how much the market believes the S&P 500 will move up or down in the next 30 days. The more volatility expected, the higher the VIX Index value goes; the less volatility expected, the lower the VIX Index. The VIX Index typically ranges from 10 (low expected volatility) to 50 (high expected volatility), though it spiked to over 80 during the 2008 financial crisis.

> ***Knopman Note:*** The VIX measures expected volatility based on the S&P 500 index.

In general, volatility has had an inverse relationship with stock market returns; thus if the market as a whole is bullish, the expected volatility is typically lower, and the VIX Index value will also be lower. If, on the other hand, the market is bearish, there is an expectation that volatility will be higher, and, therefore, that the VIX Index value will also be higher.

Here is how investors can use VIX options or SPX options based on their market views:

Market View		View on Volatility		VIX Index	How to Invest with VIX Options		How to Invest with SPX Options
Positive market outlook (bullish)	→	Decreased volatility	→	VIX is lower	Buy VIX puts Sell VIX calls	or	Buy SPX calls Sell SPX puts
Negative market outlook (bearish)	→	Increased volatility	→	VIX is higher	Buy VIX calls Sell VIX puts	or	Buy SPX puts Sell SPX calls

Knopman Note: To summarize, VIX Index options allow investors to speculate on investor sentiment and market volatility. Importantly, the VIX Index is inverse to the market; so as the market rises, the VIX falls. When the market falls, the VIX rises. Described differently, a bearish investor would purchase VIX calls.

8.4 Foreign Currency Options

Foreign currency options (FX options) are available to investors who wish to express their views on the strength or weakness of the US dollar relative to various global currencies. Through FX options, investors can accomplish strategies similar to those available with equity and index options. They are able to speculate, hedge, and produce income based on their beliefs.

There are no currency contracts available on the US dollar, although all contracts are settled in US dollars.

Information about commonly traded foreign currency options is shown in the table below.

Underlying Foreign Currency	Strike Price	Contract Size	Exercise Style	Settlement Currency	Multiplier
Australian Dollar (AUD)	$0.01 USD	10,000 Australian dollars	European	US dollar	100×
British Pound (GBP)	$0.01 USD	10,000 British pounds	European	US dollar	100×
Canadian Dollar (CAD)	$0.01 USD	10,000 Canadian dollars	European	US dollar	100×
Euro (EUR)	$0.01 USD	10,000 Euros	European	US dollar	100×
Swiss Franc (CHF)	$0.01 USD	10,000 Swiss francs	European	US dollar	100×
New Zealand Dollar (NZD)	$0.01 USD	10,000 New Zealand dollars	European	US dollar	100×
Japanese Yen (JPY)	$0.0001 USD	1,000,000 Japanese yen * Note the yen contract size is 1 million, rather than 10,000.	European	US dollar	100×

Knopman Note: Foreign currency options have a contract size of 10,000 units of currency (i.e., 10,000 pounds, Euros, or Canadian dollars). The exception is Japanese yen. Options denominated in Japanese yen have a contract size of 1,000,000 yen.

8.4.1 Strike Prices and Premiums of Foreign Currency Options

Strike prices and premiums for nearly all FX options are quoted in US cents. Japanese yen options are an exception, and their strike price is quoted in hundredths of a cent ($0.0001). Most contracts for foreign currency include 10,000 units, except for the yen, which includes 1,000,000 yen.

The value of an FX contract is determined by multiplying the strike price by the contract size, and then multiplying the result by the premium subject to its multiplier, typically 100. The calculations of profit and loss on FX options are substantially the same as for equity and index options.

Example

In June, one Euro buys $1.12 in USD, but Rich believes the USD will appreciate against the EUR and that, by year end, the two currencies will be equal. What option strategy can Rich use to profit on his belief?

Rich believes that the US dollar will strengthen against the Euro. Because there are no FX options available on the dollar, Rich must plot his strategy based on the Euro, which he expects to fall. Because he expects the Euro to fall, or is bearish, he could buy puts or sell calls on the Euro.

Assume Rich buys 1 EUR 1.12 Dec put at 3.19.

If Rich is correct in his market outlook, this option contract will allow Rich to receive cash in the amount of the difference between the strike price and Euro **spot rate**, which is the financial term used for the settlement price for commodities and currencies. If he is incorrect, his maximum loss is the premium he paid for the Euro put.

Assume the Euro spot rate at expiration is 1.00. Rich receives the difference between the strike price of 1.12 and the spot rate of 1.00. Remember, the strike and the premium are quoted in cents, so the difference of 12 cents must be multiplied by 10,000 units of currency to determine the settlement value. The settlement value of 1,200 cents is equal to $12, which is then multiplied by the multiplier of 100 for a total cash settlement value of 120,000 cents or 1,200 US dollars. Rich's profit on this transaction is $1,200 minus the premium of $319, which equals $881.

If Rich had sold a EUR 1.12 Dec call at 4 instead, he would have profited from the premium of $400. At expiration, this contract would expire because the EUR is worth less than 1.12.

8.4.2 Hedging with FX Options

Foreign currency options are frequently used for hedging when businesses engage in foreign trade. They provide protection against adverse currency movements.

Because there are no options on the US dollar, the investor's viewpoint on the currency exchange must be expressed in terms of the foreign currency.

- An investor that believes the USD will strengthen against the JPY believes the JPY will weaken against the USD.
- An investor that believes the USD will fall against the EUR believes the EUR will strengthen against the USD.

The first step in hedging with FX options is identifying the risk to the investor.

Example

A US company exports its goods to Europe and receives payment in EUR. The CFO believes the USD will appreciate against the EUR. What FX options position will hedge against this risk?

Identify the risk: The dollar appreciating against the EUR will cause the CFO's company to lose money. The options strategies to hedge against this risk are those that are profitable when this occurs.

The CFO should buy puts on the EUR to lock in the right to sell his EUR at the strike price if the company's value falls because the dollar appreciates. Buying EUR puts provides the best hedge for this risk.

Potential outcomes: If the CFO is right and the USD strengthens and the EUR weakens, the CFO can exercise the EUR puts. The EURs can be sold at the higher strike, instead of at the lower current conversion rate.

If the CFO is wrong and the USD weakens and the EUR strengthens, the CFO will allow the EUR puts to expire worthless, losing the premium paid.

Example

A Canadian company sells goods to a US customer and receives payment in USD. The Canadian firm then converts the USD into Canadian dollars (CAD) to pay its employees, vendors, suppliers, and dividends to shareholders. How can the firm best manage its risk with FX options?

Identify the risk: The risk to the Canadian company is a weakening US dollar. The company could buy fewer CAD if the USD weakens. Puts on the US dollar are not available, but the investor could instead buy calls on the CAD. With this strategy, the company can purchase Canadian dollars at the lower strike price if the USD loses value against the CAD.

Potential outcomes: If the USD weakens and the CAD appreciates, the firm exercises the CAD calls, and can buy CAD at the strike price to make payments to employees, vendors, and suppliers, and pay dividends.

If the USD strengthens and the CAD weakens, the calls will expire worthless and the premium will be lost. But the firm can buy cheaper CAD, because of the stronger USD, to meet its liabilities and pay dividends.

> ***Knopman Note:*** To take advantage of a strong foreign economy, an investor can buy calls in that currency. For example, if the French economy looks strong and France has falling unemployment, an investor should buy EUR calls. If, however, a foreign economy is weakening, an investor should buy puts on that currency.

8.5 Listed Options Contracts

The exam focuses on **listed options contracts**. Why listed options? Listed options are standardized contracts that provide for orderly, efficient, and liquid markets. The most important registered exchange for options trading is the Chicago Board Options Exchange (CBOE), though options also trade on other exchanges.

> ***Knopman Note:*** OTC options are created individually between two counterparties. The key difference between OTC and exchange-listed options is that OTC options have counterparty risk.

Listed options are those traded on a registered national securities exchange or issued and guaranteed by a registered clearing agency. All options that are cleared by the Options Clearing Corporation (OCC) are considered listed options. Let's define these terms to better understand the universe of testable options contracts.

- **Registered clearing agency**—A registered clearing agency oversees the events that occur after trade execution but before settlement on T + 1, such as comparing contraparty trade data for accuracy and authenticity, sending instructions for automated settlement of those trades, and providing a central counterparty guarantee to ensure successful and complete settlement.
- **Issued and guaranteed**—The listed options contracts discussed above—nearly all calls and puts on equities, indices, and interest rates—are initially issued by the OCC. As the issuer of these options, the OCC serves as the central counterparty to every option market participant. This counterparty guarantee is of great value because options contracts are long-dated and require that the writer be able to perform months after entering into options contracts. Because the OCC stands as the counterparty for every contract, options traders can transact in the secondary market without having to find their original or assigned opposite parties, or worrying about whether that counterparty will be able to perform at the time of expiration. All premium and settlement payments are made between OCC and its clearing members. To provide this counterparty guarantee, the OCC requires that every buyer and seller (e.g., retail customer) transact through a clearing firm (e.g., a broker-dealer) that meets stringent capital requirements and posts adequate collateral, which the OCC can use to ensure settlement.

> ***Knopman Note:*** The Options Price Reporting Authority (OPRA) collects, consolidates, and disseminates options market data (last sale and quotes) from options exchanges. Think of OPRA as the reporting facility for options transactions, similar to the consolidated tape or TRF.

8.6 Assignment and Exercise

Options contracts have provisions that govern when the holder can exercise. There are two styles of expiration: American-style and European-style.

8.6.1 American-Style Exercise

American-style options contracts allow the holder of the option to give exercise notice on any day that the market is open before the expiration date. The last day to exercise a monthly American-style option is usually the third Friday of the month in which the contract expires. Put differently, as soon as the buyer of the option takes ownership of an American-style options contract, the investor can give exercise instructions, and the OCC will deliver an exercise notice to a writer of the same options contract. However, owners of American-style options often choose to realize their profits (or losses) by selling the contract in a closing transaction as opposed to exercising the contract.

8.6.2 European-Style Exercise

European-style options contracts permit exercise only during a specified period of time just prior to expiration—generally the last trading day before expiration (for most options, expiration is the third Friday of the expiration month). Although the window for exercise is much narrower for European-style options, investors can close their positions (realizing any profit or loss) with a closing transaction at any point prior to expiration. Because of the ability to liquidate European-style options contracts at any time, most investors are indifferent to the exercise style.

> ***Knopman Note:*** Be sure to review the chart below as to which types of options are typically American-style as opposed to European-style.

American-Style	European-Style
• Equity options • Some index options	• Most, but not all, index options, including VIX options • FX options • Interest rate options

8.6.3 Assignment

Most options positions are closed out prior to expiration with offsetting closing transactions, but it is important to be familiar with the procedures and rules governing options exercise.

Once an option has been assigned, the writer must sell (calls) or buy (puts) the underlying asset at the strike price or, for index and other cash-settled options, deliver the cash settlement amount.

When an options holder decides to exercise his options, he will give notice to his broker-dealer, which will in turn notify the OCC by tendering an exercise notice. An exercise notice may be tendered to the Options Clearing Corporation only by the Clearing Trading Permit Holder that carries the customer's account. A **Clearing Trading Permit Holder** is a member of the OCC that is authorized to trade, clear, and tender exercise notices on behalf of its clients.

Once a Clearing Trading Permit Holder tenders an exercise notice, the OCC uses a random selection process to deliver a notice of assignment to a clearing member firm that has a customer with an outstanding short position in the same option series. The receiving clearing member firm will then allocate assignments among its customers using random selection or on a first-in, first-out (FIFO) basis.

> ***Knopman Note:*** When an option is exercised, the OCC assigns an exercise notice to a broker-dealer using random selection. A broker-dealer will then assign delivery to a customer who is short the equivalent position using random selection, first-in first-out, or any other fair and equitable method.

> ***Knopman Note:*** Options can be exercised up until 5:30 pm (ET) on the third Friday of the expiration month. An investor who owns an out-of-the-money option at this time will let it expire.

8.7 Settlement, Position Limits, and Exercise Limits

To help maintain fair and orderly markets, and prevent manipulation, participants in the options market are subject to a variety of rules governing the trading and settlement, holding, and exercising of options. These include rules set by FINRA (such as Rule 2360) as well as those set by the OCC, the CBOE, and the other SROs that regulate options contracts.

8.7.1 Listed Options Settlement

After an option is bought or sold, the trade will settle on the next business day. The term **settlement** describes when a securities transaction is complete; when purchasing an option contract, on the settlement date the buyer must pay the premium and will receive legal title to the security. With legal title to the contract, the holder can then exercise (enter a second transaction to buy or sell at the strike) or liquidate (enter into a closing sale) as desired. Conversely, on settlement the writer of an option will receive the premiums and is subject to receiving an assignment notice requiring the purchase (puts) or sale (calls) of the underlying asset. These settlement timeframes are constant across both opening and closing transactions.

> ***Knopman Note:*** The settlement timeframe for buying and selling options contracts is T + 1, which is different when compared to buying and selling equities and corporate or municipal bonds, which settle T + 2.

> ***Knopman Note:*** Options typically cannot be purchased on margin (using borrowed funds). Therefore, a customer buying two options contracts at a premium of $14 per contract would need to pay $2,800 ($14 per Share × 100 Shares × 2 Contracts) at settlement. Note that if the customer already had more than $2,800 in their account, no deposit of cash would be required to make the purchase.

8.7.2 Position Limits

Position limits restrict the number of contracts a single entity or investor group may own on each side of the market. For the purpose of position limits, the sides of the market are bullish positions (long calls or short puts) and bearish positions (long puts or short calls). The rules prohibit any member from entering a trade that would cause an account, including a customer's account or the firm's own proprietary trading account, to exceed the position limit as set by the exchange where the option trades or by FINRA. Any orders that would result in the position limit being exceeded must be rejected.

> ***Knopman Note:*** When determining the number of options contracts an investor has on each side of the market to ensure the investor is not exceeding position limits, add up bullish positions on one side of the market (long calls and short puts) and bearish positions on the other side of the market (long puts and short calls).
>
> For example, 5,000 long calls and 4,000 short puts are aggregated as a 9,000 contract position (since they are both bullish). On the other hand, 3,000 long calls and 3,000 long puts would be two separate 3,000 contract positions since one is bullish and one is bearish.

> ***Knopman Note:*** The CBOE's position limits rule governs how many options contracts an investor may control. Exceptions to the standard position limits are available for 1) delta hedging, 2) firm facilitation, or 3) market-making. Note: No exception exists for position limits based on dividends.
>
> It is more important to know the exemptions' names—and what is not an exemption—than their application or use.

8.7.3 Exercise Limits

Just as a member firm must reject any order that would cause an account to exceed a position limit, it must reject any exercise instructions that exceed an option contract's **exercise limit**. The exercise limit provisions restrict the number of contracts on the same side of the market that an account may exercise within any five consecutive business days. The number of contracts that may be exercised in the period is the same as the position limit for that options contract.

This means that if an equity option has a position limit of 250,000 contracts, no account can deliver exercise instructions for more than 250,000 contracts in any five consecutive business days.

8.8 Options Contract Adjustments for Splits and Dividends

When the underlying asset in an options contract is subject to a corporate action, such as a stock split or dividend, the options contracts on those assets are adjusted by the OCC so that the investor's exposure remains the same. This discussion will review adjustments for forward even splits, forward odd splits, reverse splits, and stock dividends.

8.8.1 Forward Even Splits

A stock split usually takes place when share prices have reached levels that are too high to attract investor interest or are significantly higher than those of other companies in the same sector. Companies use splits to make shares seem more affordable to investors even though the underlying value of the company does not change.

An even split provides a multiple of new shares for each single share previously owned. For example, after a 2:1 split, investors will have two shares for each single share they previously owned; in a 4:1 split, investors will have four shares for each single share they previously owned.

> ***Knopman Note:*** The key to successfully adjusting options contracts for splits or stock dividends is to make sure that the investor's total contract value is the same before and after the split. The adjustments do not affect the premiums nor the expiration dates, though the premiums could be impacted by trading conditions.

Example: 1 JDM Jan 50 Call at 4

JDM announces a 2:1 split.

Step 1: Determine the total value of the contract by multiplying the strike price by the number of shares.

100 Shares × 50 = $5,000

Step 2: Increase the number of contracts by the split amount.

In a 2:1 split, one contract of 100 shares becomes two contracts totaling 200 shares.

Step 3: Divide the total contract value by the new number of shares to determine the adjusted strike price.

$5,000/200 Shares = $25 Strike Price

After the split, there are now 2 JDM Jan 25 calls at 4.

2:1 Split Example						
Contracts		**Shares**		**Strike Price**		**Contract Value**
1	×	100	×	$50	=	$5,000 (100 × $50)
Adjust the number of contracts				*Adjust the strike price*		*Contract value is unchanged*
2	×	100	×	$25	=	$5,000 (200 × $25)

Example: 1 JDM Jan 50 Call at 4

JDM announces a 4:1 split (even split).

Step 1: Determine the total value of the contract by multiplying the strike price by the number of shares.

100 Shares × 50 = $5,000

Step 2: Increase the number of contracts by the split amount.

In a 4:1 split, one contract of 100 shares becomes four contracts totaling 400 shares.

Step 3: Divide the total contract value by the new number of shares to determine the adjusted strike price.

$5,000/400 Shares = $12.50 Strike Price

After the split, there are now 4 JDM Jan 12.50 calls at 4.

4:1 Split Example						
Contracts		**Shares**		**Strike Price**		**Contract Value**
1	×	100	×	$50	=	$5,000 (100 × $50)
Adjust the number of contracts				*Adjust the strike price*		*Contract value is unchanged*
4	×	100	×	$12.50	=	$5,000 (400 × $12.50)

8.8.2 Forward Odd Splits

In an odd split, such as a 3:2 split or 5:4 split, the number of shares after the split is not a multiple of 100 shares. As a result of an odd split, because there cannot be a fractional number of contracts, the number of contracts does not change. Instead, the number of shares in a contract is adjusted.

The process of adjusting is the same. The key concept to remember is that the total contract value does not change after the split.

Example: 1 JDM Jan 50 Call at 4

JDM announces a 3:2 split.

Step 1: Determine the total value of the contract by multiplying the strike price by the number of shares.

100 Shares × 50 = $5,000

Step 2: Determine the number of shares in the adjusted contract.

In a 3:2 split, multiply the original number of shares, 100, by three and divide by two.

300 Shares/2 = 150 Shares

Step 3: Divide the total contract value by the new number of shares to determine the adjusted strike price.

$5,000/150 Shares = $33.33 Strike Price

After the split, there is now 1 JDM Jan 33.33 call for 150 shares at 4.

3:2 Split Example						
Contracts		**Shares**		**Strike Price**		**Contract Value**
1	×	100	×	$50	=	$5,000 (100 × $50)
Do not adjust the number of contracts				*Adjust the strike price*		*Contract value is unchanged*
1	×	150	×	$33.33	=	$5,000 (150 × $33.33)

> ***Knopman Note:*** Here are some key points regarding stock splits:
>
> - The value of an option contract remains the same if the underlying stock splits. For example, the value of an option contract is $500; the underlying equity has a 5:4 stock split, so the option's value remains the same at $500).
> - In an odd split, the contract size changes. For example, a 3:2 stock split means the contract size will increase from 100 shares to 150 shares.

8.8.3 Reverse Split

In a reverse stock split, a company increases the value of its stock by reducing the number of shares. In many instances this is done to maintain a minimum price so the stock is not delisted from an exchange.

A reverse split results in fewer shares with more value per share. As with forward splits, the contract value is the same before and after the split.

Example: 1 JDM Jan 50 Call at 4

JDM announces a reverse 1:10 split.

Step 1: Determine the total value of the contract by multiplying the strike price by the number of shares.

100 Shares × 50 = $5,000

Step 2: Determine the number of shares in the adjusted contract.

In a 1:10 split, divide the original number of shares, 100, by 10.

100 Shares/10 = 10 Shares

Step 3: Divide the total contract value by the new number of shares to determine the adjusted strike price.

$5,000/10 Shares = $500 Strike Price

After the split, there is now 1 JDM Jan 500 call for 10 shares at 4.

8.8.4 Stock Dividends

At times corporations pay dividends to shareholders in additional shares of stock rather than in cash. If a company announces a stock dividend, each shareholder will receive an additional fractional share for each share currently held. As before, the total contract value does not change.

The same adjustment process used for odd splits can be applied to stock dividends.

Example 1: JDM Jan 50 Call at 4

JDM announces a 5% stock dividend.

Step 1: Determine the total value of the contract by multiplying the strike price by the number of shares.

100 Shares × 50 = $5,000

Step 2: Increase the number of shares by the dividend amount.

In a 5% stock dividend, each contract's size is increased by 5%.

Each 100-share contract becomes a contract for 105 shares.

Step 3: Divide the total contract value by the new number of shares to determine the adjusted strike price.

$5,000/105 Shares = $47.62 Strike Price

After the split, there is now 1 JDM Jan 47.62 call for 105 shares at 4.

Knopman Note: Remember, new options contracts are created only when shares increase by a multiple of 100.

8.9 Unique Options Order Types

In addition to traditional market and limit orders, the options market offers other types of orders. These are available for execution on virtually all options exchanges. The orders are defined under CBOE Rule 6.53.

Knopman Note: Under CBOE rules, a **floor broker** is an individual who accepts and executes orders while physically on the floor of the exchange. Floor brokers can accept and execute orders from registered broker-dealers and trading permit holders; they cannot accept orders from any other source.

8.9.1 Contingency Orders

Options traders can enter orders that are dependent on the price of the underlying equity security. These are called **contingency orders**. They are so named because their execution is contingent on the last reported price of the underlying security on the primary exchange (e.g., NYSE). Stop orders, stop limit orders, market-if-touched orders, and market-on-close orders are examples of contingency orders.

Knopman Note: Contingency orders are executed based on the last sale price of the underlying security on the primary exchange. If that price is later determined to be erroneous, the contingency trade will not be altered unless mutually agreed to by the parties to the trade.

8.9.2 One-Cancels-the-Other Orders

A **one-cancels-the-other (OCO) order** consists of two or more orders treated as a unit. If one of the orders is executed, all remaining orders are cancelled. An OCO order is also referred to as a **stipulation order**.

Example

A trader enters two limit orders:

1. Buy 10 Jan 70 calls at 3, or
2. Buy 10 Jan 60 puts at 2, OCO

If the calls are purchased, the put order is cancelled, and if the puts are purchased, the call order is cancelled.

8.9.3 Not Held Orders

Not held orders permit floor brokers to decide the time and price at which to execute a customer's order. All orders given to floor brokers are defined as not held orders unless otherwise specified. When accepting these orders, firms may mark the order ticket as a "take time" order. A note held order does not give discretion over the action (buy or sell), quantity, or specific security.

> *Knopman Note:* All orders given to floor brokers are defined as **not held orders** unless otherwise specified.

8.9.4 Time-in-Force Orders

The following order types function in the same manner in the options markets as they do in the equity markets.

- **All-or-none (AON)**—Any market or limit order that must be executed in its entirety or not at all
- **Fill-or-kill (FOK)**—An order that must be executed in its entirety as soon as it is presented for execution, or the order is cancelled
- **Immediate-or-cancel (IOC)**—A market or limit order that must be executed as soon as it is presented for execution, but the order permits a partial fill. Any unfilled portion of the order is cancelled. IOC orders differ from FOK orders in that a partial execution is permitted. Confusingly, IOC orders may also be referred to as fill-*and*-kill orders (FAK), distinct from fill-*or*-kill.
- **Opening rotation**—A market order that must be executed only during the opening auction of a series, or the order is cancelled

Knopman Note: If a market maker holds a customer all-or-none (AON) buy order and receives a sell order that is not for enough shares, the market maker will not execute the customer's AON order. For example, if a customer enters a buy 600 shares AON order and, subsequently, a market order to sell 300 is received, the AON order is not executed. The same concept applies to options trades.

8.9.5 Complex Orders

A **complex order** permits a customer to place a single order to enter into a complex position, such as a straddle, a spread, a combination, or another multi-leg position.

Knopman Note: Complex orders can be executed via CBOE's Complex Order Book (COB) or Complex Order Auction (COA). These automated systems facilitate execution of complex orders while still offering the opportunity for price improvement.

Unit Exam

1. A holder of a call option contract would like to receive a cash dividend declared by the issuer of the underlying stock. In order to receive the dividend, what action must the holder take?

   A. The holder must exercise the option before the ex-dividend date
   B. The holder must exercise the option before the record date
   C. The holder will receive the dividend automatically, and no action is required
   D. The holder is not entitled to receive the dividend under any circumstances

2. Which of the following spread options positions is bearish?

   A. Buy 1 ABC Nov 30 call and sell 1 ABC Nov 40 call
   B. Buy 1 ABC Nov 30 put and sell 1 ABC Nov 40 put
   C. Buy 1 ABC Dec 50 call and sell 1 ABC Nov 50 call
   D. Buy 1 ABC Feb 70 put and sell 1 ABC Feb 60 put

3. An investor purchases 1 ABC Nov 50 call for $5 and sells 1 ABC Nov 60 call for $2. The maximum loss of the position is:

   A. $3 per share.
   B. $7 per share.
   C. $10 per share.
   D. unlimited.

4. An investor that strongly believes the market will fall over the next two quarters should invest in which of the following options positions?

   A. Long VIX calls
   B. Short VIX calls
   C. VIX spread
   D. VIX straddle

5. An investor who is already short 1 XYZ Nov 50 call and believes the price of XYZ will remain at 50 for the foreseeable future would most likely take advantage by:

   A. buying 1 XYZ Nov 50 put.
   B. buying 1 XYZ Nov 50 call.
   C. selling 1 XYZ Nov 50 put.
   D. selling 100 shares of XYZ stock short.

6. Which of the following statements regarding listed options and OTC options is most accurate?

   A. Listed options have default risk
   B. OTC options have default risk
   C. Both listed and OTC options have default risk
   D. Neither OTC or listed options have default risk

7. When an option is exercised, the OCC assigns an exercise notice to a broker-dealer:

   A. using FIFO.
   B. using LIFO.
   C. using random selection.
   D. based on the largest position.

8. ABC security has a position limit of 100,000 contracts. Which of the following customer positions does not exceed the limit?

   A. Short 60,000 ABC calls and short 60,000 ABC puts
   B. Long 90,000 ABC calls and short 40,000 ABC puts
   C. Long 75,000 ABC calls and long 110,000 ABC puts
   D. Short 65,000 ABC calls and long 50,000 ABC puts

Unit Exam (Continued)

9. A trader enters a CBOE option order to buy 50 June calls at 1.66 IOC. If 30 calls can be immediately filled at 1.66, what will happen to the order?

   A. It is cancelled, with no fill.
   B. It remains on the book until it can be filled in full.
   C. It is partially filled for 30 calls; the unfilled portion is cancelled.
   D. It is partially filled for 30 calls; it then becomes a new order to buy 20 calls at 1.66.

10. An option trader wants to buy 500 puts on the CBOE at a specified price or better. The trader wants the order to stay on the books until it's filled that day, but will not accept a partial fill. Which contingency should be marked on the order ticket?

    A. IOC
    B. FOK
    C. AON
    D. Not held

Unit Exam—Solutions

1. **(A)** Cash dividends are paid by issuers to owners of the stock as of the date of record. To receive a cash dividend, a call holder must exercise the option prior to the ex-date so that ownership of the underlying equity is established on the record date.

2. **(D)** To create a bearish spread position, an investor can sell a call with a lower strike price or buy a put with a higher strike price. Therefore, Choice D is bearish since the investor is buying the put with the higher strike price. If the strike prices are the same, then the option with the later strike price is the dominant position. In Choice C, because the long call has the later expiration, it is the dominant position and therefore the investor would be bullish.

3. **(A)** This is a debit call spread since the investor is buying the call option with the lower strike price. Because the investor is buying the call option with the lower strike price, they are bullish, and therefore the worst case scenario is that the price of the stock falls to zero, in which case both options would expire and they would lose the net premiums paid of $3 per share.

4. **(A)** The VIX measures volatility in the S&P 500 and, therefore, moves upward when the market falls. To profit on a VIX option when the market is falling, the investor needs to purchase VIX calls.

5. **(C)** An investor who is short volatility, meaning they believe the price of the stock will stay flat, will create a short straddle in order to collect the premiums. To create a short straddle, an investor would sell a call and sell a put together.

6. **(B)** Listed options contracts are guaranteed by the Options Clearing Corporation (OCC) and therefore do not have default risk. OTC options are not issued or guaranteed by the OCC and therefore do carry default (counterparty) risk.

7. **(C)** When an option is exercised, the OCC assigns an exercise notice to a broker-dealer using random selection. A broker-dealer will then assign delivery to a customer who is short the equivalent position using random selection, first-in first-out, or any other fair and equitable method.

8. **(A)** When determining the number of options contracts an investor has on each side of the market to ensure the investor is not exceeding position limits, add up bullish positions on one side of the market (long calls and short puts) and bearish positions on the other side of the market (long puts and short calls).

9. **(C)** An immediate-or-cancel (IOC) order must be executed, in whole or part, as soon as it is presented for execution. Any unfilled portion is cancelled. Note that IOC orders permit partial execution, but fill-or-kill (FOK) orders do not.

10. **(C)** An all-or-none (AON) order is a market or limit order that must be executed in its entirety or not at all. It differs from a fill-or-kill (FOK) or immediate-or-cancel (IOC) order in timing. An AON order stays on the books until it can be entirely filled. It does not need to be executed immediately.

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