How to Use This Handout

As the instructor presents the material throughout the class, use this Handout to take notes, answer questions, and complete activities. Once the class is complete, this Handout can be used as an ongoing resource.

About the Series 57 Exam

1	2	3	4	5
50 Multiple-Choice Questions	One Hour and 45 Minutes Allotted to Complete Exam	Five Additional Questions are Included as Experimental (don't count for or against the score)	Minimum Required Passing Score is 70%	30-, 30-, 180-Day Waiting Period For Failures

Function	Percentage of Exam	# of Questions
1. Trading Activities	82%	41
2. Maintaining Books and Records, Trade Reporting, and Clearance and Settlement	18%	9
Total		**50**

STC Study Materials

8 Chapter Study Manual

8 Final Examinations

- 55-question comprehensive exams
- Complete explanations provided
    - First attempt
        - Select “Show Explanations”
        - Complete all exams with explanations shown before beginning the second attempt
    - Second attempt
        - Turn “Show Explanations” Off
        - Scores of 80% or higher indicate adequate retention
    - Create Custom Exams
        - Provides specific support by topic
        - Allows students to focus on areas of weakness

Chapter 1 – Overview of Markets and Trading

Types of Orders

Market Order	Limit Order
▪ Customer wants to buy or sell ▪ Order is immediately executed at the best price available ▪ Customer specifies the security and size of the order only ▪ Execution is **certain**	▪ Customer only wants to buy or sell at a set price or better ▪ Order is only executed if the price can be met Buy limits: at set price or lower Sell limits: at set price or higher ▪ Customer specifies the security, size, and price ▪ Execution is **uncertain**

Market versus Limit Orders

Two-sided quotation:

Bid	Ask
17.05	17.15

Spread is $.10

Actively traded stocks tend to have narrow spreads

Market orders are filled immediately at the best price available

- Buy orders pay the Ask (lowest sell order in system)
- Sell orders receive the Bid (highest buy order in the system)
- Market orders cross the spread

Limit orders are displayed in price/time priority

- Buy limit orders are displayed as Bids (highest first)
- Sell limit orders are displayed as Ask (lowest first)
- There will be a spread between the highest bid and lowest ask

Market versus Limit Order - Example

Bid	Ask
17.05	17.15

Scenario 1:

Client enters a buy order at 17.10:
- Order is not filled, but Bid changes to 17.10
  - Another client enters an order to buy at the market; filled at Ask of 17.15
  - Next client order to sell at market is filled against first client's Bid at 17.10

Scenario 2:

Client enters a buy order at 17.10:
- Order is not filled, but Bid changes to 17.10
  - Another client enters an order to buy at market; filled at Ask of 17.15
  - Next client enters order buy at 17.11; Bid changes to 17.11
  - Next order to sell at market is filled at 17.11
  - First client's order is never filled

Stop Orders

Stop Orders are a type of contingent order which are "triggered" (activated) by the market trading at, or through, the stop price
- *Sell Stop* will activate at stop price or lower
- *Buy Stop* will activate at stop price or higher

Once activated:

Stop orders become → **market orders (immediate execution)**

Stop-limit orders become → **limit orders (uncertain execution)**

- A firm is not obligated to accept a stop or stop-limit order
- A firm may accept orders that are activated at a different trigger price (using a quote as the stop price) provided they're not labeled as stop orders and proper disclosures are made

Activity #1 – Types of Orders

1. Which TWO of the following statements are TRUE of limit orders?
   I. Buy orders are entered above the market price.
   II. Buy orders are entered below the market price.
   III. Sell orders are entered above the market price.
   IV. Sell orders are entered below the market price.

2. Which TWO of the following statements are TRUE of stop orders?
   I. Buy orders are entered above the market price.
   II. Buy orders are entered below the market price.
   III. Sell orders are entered above the market price.
   IV. Sell orders are entered below the market price.

3. Which order has first execution priority?
   a. An order entered at 10:03 a.m. to buy at 48.52
   b. An order entered at 10:01 a.m. to buy at 48.51
   c. An order entered at 10:04 a.m. to buy at 48.52
   d. An order entered at 10:02 a.m. to buy at 48.52

Market Makers

Market makers are dealers in a specific stock:

- Trade from inventory
- Provide liquidity
- Must always be willing to take either side of a trade

On the NYSE:

- One market maker per stock
- Designated Market Maker (DMM) or Specialist

In NASDAQ:

- Unlimited number of market makers per stock
- Must be registered with FINRA

National Market System (NMS)

Created one market for listed equities

- All listed equites can trade across all exchanges

UTP (unlisted trading privileges)

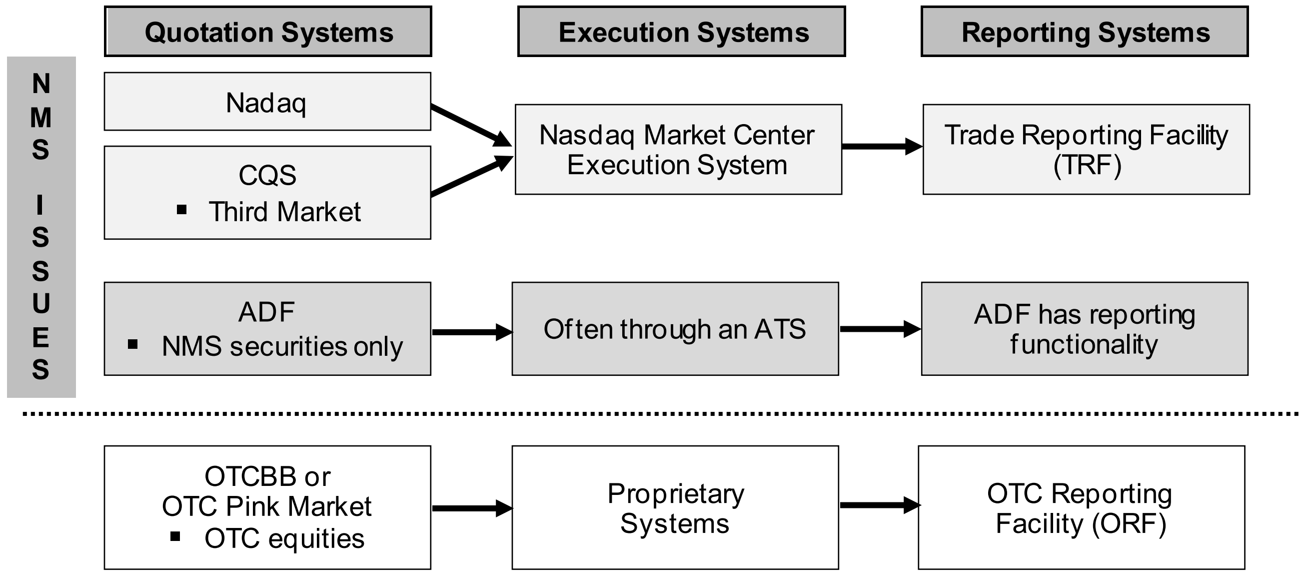
- Doesn't include OTC (unlisted) equities (i.e., OTCBB and Pink Market)
- The first trade of a listed IPO must take place on the exchange on which it's listed (after first trade, it's tradeable on all exchanges)

The NMS governs the activities of all formal U.S. stock exchanges and the Nasdaq market.

Created National Best Bid and Offer (NBBO)

Highest bid and lowest offer from all of the participants that are quoting an NMS stock in the U.S.

Equity Trading – Overview



Consolidated Quotation System (CQS)

Consolidated Quotation System: (Third Market – NYSE/ Exchange-listed securities that are traded OTC)	A system that collects and consolidates quotes for securities which are listed on an exchange other than Nasdaq
Registration as a CQS Market Maker:	Same method used as registering in Nasdaq securities ▪ For an unexcused withdrawal, a **one** business day penalty is assessed
Securities Quoted Include:	Common and preferred stock, convertible bonds, warrants, and rights

Alternative Display Facility (ADF)

Mandated by the SEC as an alternative to market participants that elect not to use the Nasdaq Market Center

ADF Hours	ADF Market Participants	ADF Reporting Service (formerly TRACS)
▪ Operates from 8:00 a.m. to 6:30 p.m. ET	▪ Able to post quotes and report trades ▪ Must provide other market participants with direct and non-direct electronic access to their quotes ▪ Doesn't provide execution	▪ Used by market participants that are not a part of Nasdaq; an alternative to the TRF ▪ Reporting times and rules are similar to the TRF

Alternative Trading Systems (ATS)

An SEC-approved, electronic trading system that matches the buy and sell orders of its subscribers

- Under Regulation ATS, such systems are required to register as an exchange or broker-dealer
- Example include:
  - Electronic Communication Networks (ECNs)
  - Trade crossing networks
  - Firm's internal execution system

ATS trades must be reported within 10 seconds of execution

An ATS is a networked application that electronically connects potential buyers and sellers of securities and matches trades that meet predefined criteria

Electronic Communication Network (ECN)

An electronic system, operated by a B/D or registered as an exchange, that executes/displays orders from buyers and sellers

- When an order is received, the system is instantaneously scanned to determine if there's a matching order; if so, the order is executed (if not, it will be displayed)
- May allow for trading outside of normal market hours
  - Prior to conducting trades outside of normal business hours, the client must receive written disclosure regarding the risks, which include greater spreads, less liquidity, and increased volatility

The Nasdaq Stock Market

ABCO	Bid	Ask	Size
Inside:	22.75	23.00	10 x 30
MM 1	22.50	23.12	50 x 50
MM 2	22.75	23.25	10 x 40
MM 3	22.50	23.00	20 x 30

Level 1:
- Inside market only (highest bid and lowest asked/ offer) without identifying any market makers

Level II:
- Quotes of all market makers that deal in the security
- TotalView provides additional depth and aggregate size at the five best price levels

Level III: (same information as Level II)
- Allows market makers to enter or change their quotes

Nasdaq Market Center Execution System

The NMCES is an order display, execution, and reporting system for Nasdaq and CQS (third market) securities
- Orders are routed to dealers at the inside market for automatic execution in price/time priority
  - Trades are “locked-in” for clearing and reporting purposes
- The following agency and proprietary orders are acceptable:
  - Market, limit (marketable and non-marketable), short sales
- Maximum order size is 999,999 shares; however, larger orders may be accepted and split into multiple smaller orders
- The system will only display round lots
  - Odd lot orders are accepted and executed but not displayed
  - Mixed lots are rounded down to the nearest round lot at that price levelName of customer

Order Execution

Market Maker	Bid	Display	Reserve
CITI	25.60	1,000	
CSCO	25.60	1,000	
GSCO	25.55	1,000	

What happens if a market order to sell 2,500 shares is entered?

- 1,000 sold to CITI at 25.60
- 1,000 sold to CSCO at 25.60
- 500 sold to GSCO at 25.55

Order Execution

Market Maker	Bid	Display	Reserve
CITI	25.60	1,000	3,000
CSCO	25.60	1,000	2,000
GSCO	25.55	1,000	2,000

What happens if a market order to sell 4,000 shares is entered?

- 1,000 sold to CITI (displayed quote)
- 1,000 sold to CSCO (displayed quote)
- 2,000 sold to CITI (reserve)

Priority: Displayed orders have priority over non-displayed orders (including Reserve size and Discretionary portion of discretionary order – discussed next)

Discretionary Orders

Discretionary Orders

- Has a displayed limit order price and a non-displayed limit order price
- Buy orders are adjusted up; sell orders are adjusted down

Market Maker	Ask	Display
JPMC	17.60	1,000
WFCC	17.65	1,000
CFCC	17.70	1,000

NITE enters an order to sell 1,000 shares at $17.60 with a discretionary range of $.03 (down to $17.57)

- If a buy limit order for 1000 shares is entered at 17.58, NITE will be filled at 17.58
- If a market order to buy 1600 shares is entered, 1,000 will be filled against JPMC (time priority), while NITE will receive a partial fill of 600 shares at 17.60, leaving 400 shares available at 17.57 or higher

Registration as a Nasdaq Market Maker

To register as a market maker, a firm must file an application

- Effective when notified by FINRA
- Once notified, firm may register (through its Level III terminal) as a market maker for separate stocks and begin quoting on the same day
- Quotes must be two sides and firm for at least 100 shares on each side
- Registration ceases if no quote is made within five business days

No FINRA member may accept payment from an issuer for market making

Nasdaq system hours:	From 4:00 a.m. to 8:00 p.m. Prior to 9:30 a.m., it's premarket
Nasdaq market maker open hours:	9:30 a.m. to 4:00 p.m.

Withdrawal of Market Maker Quotes

Excused withdrawals are permitted for:

- Up to five business days for issues beyond its control, including system failures
- Up to 60 calendar days for legal or regulatory issues
- Religious holidays
- Vacations at small firms (three or fewer Level III terminals)
- Participation in an underwriting
- Termination of relationship with clearing firm

However, NOT for an influx of orders or volatility

For unexcused withdrawals, firm is suspended for 20 business days from market making in that stock

For accidental withdrawal, firm must report within one hour

Locked and Crossed Markets

Market maker quotes cannot lock or cross the market

- Locked market: Bid = Ask
- Crossed market: Bid above Ask or Ask below Bid
- A spread must always exist (Bid less than Ask)

Inside Market:	Bid: $14.65	Ask: $14.75
Bid of 14.75 will lock the market; a bid of $14.76 or higher will cross the market		
Offer of 14.65 will lock the market; an offer of 14.64 or lower will cross the market		

Highest bid that may be entered? **14.74** Lowest ask that may be entered? **14.66**

Note: Orders that would lock or cross the market are automatically executed at the bid or ask as a market order (which is price improvement).

Activity #2 – Quote Rules

	Bid	Ask	Size
MM 1	22.50	23.00	50 x 50
MM 2	22.65	22.95	10 x 40
MM 3	22.55	22.80	20 x 30

1. What's the inside market?
2. What's the lowest ask that's permitted to be entered? a. 22.79 b. 22.49 c. 22.66 d. 23.01
3. What happens if an order to sell at 22.35 is entered?
   a. Not permitted; it will cross the market b. Executed at 22.65 c. Executed at 22.35 d. Executed at 22.80
4. If a market order to buy 10,000 shares is executed, the inside market will be:
   a. B 22.50 – A 22.80 b. B 22.65 – A 22.95 c. B 22.65 – A 23.00 d. B 22.55 – A 23.00

Regulation NMS Rule 611

Rule 611 – Order Protection Rule

- Market centers are required to establish, maintain, and enforce written policies to prevent "trade-throughs"
  A trade-through is defined as the purchase or sale of an NMS stock during trading hours at a price that's lower than a protected bid or higher than a protected offer
- Protected quotes are automated, not manual, quotes
- The rule protects only the highest bid and lowest offer, not the entire market center's limit order book

Regulation NMS

Exceptions to the Order Protection Rule:

Material delays that are caused by malfunctioning equipment (referred to as the "self-help" exemption)	Flickering quotations (multiple prices in one second)	Benchmark orders, such as volume-weighted average (VWAP) orders	Stopped orders Intermarket Sweep Orders (ISO)	Transactions that were single-price opening or closing transactions

Market Maker Peg Order

Market Maker Peg Orders: Orders that assist a market maker in meeting its quoting obligations

- Unlike a fixed price order, a Market Maker Peg order is not static; instead, it's automatically repriced due to changes in the market price (moves tick-by-tick with the market)
- A buy order is pegged to the inside bid; a sell order is pegged to the inside ask
  - Usually with an offset (e.g., Buy $0.10 below bid)
  - Market Maker Peg Order with No Offset: automatically offset based on the designated percentage (8% for most stocks)
- Market Maker Peg orders are always displayed

Activity #3 – Peg Orders

A market maker enters a peg order to buy with an offset of $.10 and a limit price of $19.99

1. If the NBB is $20.00, what's the market maker's bid?

2. If the NBB subsequently drops to $19.98, to what will the market maker's bid be changed?

3. If the NBB then rises to $20.00, the market maker's peg order will be:
   a. Repriced to $20.00
   b. Repriced to $19.99
   c. Cancelled
   d. Executed at $19.99

Order Qualifiers

Good-till-Canceled (GTC) or Open Order: Remains active until executed or canceled by the customer

Not-Held (NH) Order: gives discretion as to time and/or price of execution; day orders only

Immediate-or-Cancel (IOC): Any portion of the order that's not immediately executed is cancelled.

Minimum Quantity Order: An IOC order which requires a minimum quantity be executed or the entire order will be canceled

System Hours Orders:
- May be entered starting at 4:00 a.m. and available for execution from 4:00 a.m. until 8:00 p.m.

Market Hours Orders:
- Available for execution from 9:30 a.m. to 4:00 p.m. (may be entered at 4:00 a.m.)

Chapter 3 – OTC Markets

OTC Equity Securities

OTC Equity – any non-exchange-listed security and certain exchange-listed securities that don't otherwise qualify for real-time trade reporting

- (Penny stock: a non-exchange listed stock that trades below $5 per share – special disclosure rules apply)

Over-the-Counter Bulletin Board (OTCBB)

- OTCBB-eligible securities are SEC reporting companies (both domestic and foreign)
- Has no listing standards and should not be confused with the Nasdaq Stock Market
- Real-time, computer-based quote system
- Companies must be current in their SEC reports
- Stock quotes are firm; DPP quotes are NOT firm
- Minimum quote size is dependent on the price of the security (size inverse to price)
  - For example, if price is below $.10, the minimum quote size is 10,000 shares

OTC Equity Securities

Over-the-Counter Bulletin Board (OTCBB)

- Members may enter one-sided quotes, two-sided quotes, unpriced indications of interest, and bids and offers that represent unsolicited customer interest
- All quotes must include the phone number of the trading desk
- If at least two members display two-sided quotes, the system will quote the inside market
- If a market maker terminates its quote, no penalty is assessed

OTC Pink Market

- Quotation system that provides real-time quotes for OTC equities
- Unlike OTCBB, OTC Pink Market issuers have no requirement to file financial reports with the SEC

Quote Initiation
– Non-Exchange Listed Securities

Prior to initiating quotes for unlisted equities, a broker-dealer must collect and review certain information about the issuer

- Information must be submitted to FINRA on Form 211 at least three business days prior to quoting

Information to be collected can usually be found in:

- Current Prospectus or Offering Circular
- Current Form 10-K and all subsequent 10-Qs

If these documents are unavailable, a broker-dealer may collect 16 specific items of information about the issuer

Market makers in unlisted equities are not required to register with FINRA as they do for NASDAQ equities

"Piggyback" Exception

Broker-dealers are not required to file Form 211 under the following conditions:

- The securities have been the subject of regular and continuous quotes for the past 30 days
  - A quote has appeared on at least 12 of the last 30 days
  - Not more than four consecutive business days have elapsed without a quote
- Piggybacking is not available if the issuer is subject to an SEC trading suspension, is bankrupt, or is not current in its SEC filings

Securities that are quoted on the OTCBB are identified as "active"

Note: If an issuer is delisted from Nasdaq, it may immediately be quoted on the OTCBB or OTC Pink Market. However, it must reapply and satisfy initial Nasdaq listing standards for its stock to again be listed on Nasdaq.

Chapter 4 – Trading Rules

Nasdaq Opening

Designed to create a fair and orderly market opening

On Open:	Limit-on-Open (LOO) or Market-on-Open (MOO) orders are only to be executed at the opening ▪ May be entered between 4:00 a.m. and 9:28 a.m. ▪ May not be cancelled or corrected after 9:28 a.m.
Order Imbalance Orders:	Orders entered to create liquidity against On-Open orders ▪ May be entered after 9:28 a.m., but only to offset imbalance
Order Imbalance Indicator:	The system will begin sending information at 9:28 a.m. every second ▪ Nasdaq Official Opening Price (NOOP)

Nasdaq Closing Cross

Nasdaq Closing Cross is designed to assist in facilitating an orderly market closing

- Market-on-close (MOC) and limit-on-close (LOC) orders may be entered, cancelled, or modified between 4:00 a.m. and 3:55 p.m. ET
- At 3:55 p.m., an order imbalance indicator begins to be disseminated (every second thereafter)
- After 3:55 p.m., imbalance only orders (IO) may be entered to offset the imbalance
- The Closing Cross begins at 4:00 p.m.

Nasdaq IPO/Halt Cross

Designed to create a single price for IPOs and halt resumptions based on supply and demand

- For IPOs, the quote-only period begins 15 minutes prior to the beginning of trading
- For trading halts, the quote-only period begins five minutes prior to the resumption of trading
- Nasdaq may extend the period if an imbalance exists or a request is made by the underwriter
- IPO and halt information will be disseminated during quote-only period
- Similar to the process of the opening cross

> No member firm may accept a market order for the purchase of a new issue in the secondary market prior to stock being traded in the secondary market.

Trading Halts

FINRA may impose trading halts based on pending news regarding a security

T.1	News Pending
T.2	News Released (according to Reg FD)
T.3	Resumption Times (quoting and trading)
T.6	Extraordinary Market Activity

Five-minute interval between quoting and trading for T.3

Regulation SHO

SEC rules that regulate short sales

- Any order ticket to sell an equity security must be marked appropriately

  LONG – the seller is either long or will be long the security being sold by the settlement date

  SHORT – the seller either doesn't own the security being sold or owns the security being sold, but doesn't expect to deliver the security by the settlement date

  SHORT EXEMPT – the sell order is exempt from SEC Rule 201

Short Sales and Regulation SHO

An investor is considered to be the owner or long a security when:

- The investor or the investor's agent has title to the security
- The investor has purchased the security, but the trade has not yet settled
- The investor owns convertibles that <u>have been</u> tendered for conversion
- The investor has an option, right, or warrant that <u>has been</u> exercised

Regulation SHO – Rule 203

Rule 203 creates a uniform Locate Requirement for securities that are being sold short

- A B/D may not effect a short sale unless it has:
  1. Borrowed the security or entered into an arrangement to borrow the security, or
  2. Has reasonable grounds to believe that the security can be borrowed, or
  3. Has documented compliance
- B/Ds may use an "Easy to Borrow" list if it's less than **24** hours old and the securities on the list are so readily available that fails to deliver are unlikely
- The fact that a security is not on a "Hard to Borrow" list is not sufficient

Exceptions from the Locate Requirement

- B/Ds that accept short sale orders from other B/Ds that are required to comply
- Sellers that are the owners of the security and will deliver when all possible restrictions are removed
  - If delivery is not made within 35 days, the B/D must either borrow or buy the securities to close out the position
- Short sales that are executed by MMs in connection with their bona fide market making activities

Activity #4 – Regulation SHO

1. An investor is long 10 ABC call options and has submitted exercise notices and an order to sell 1,000 shares of ABC stock. How is the order ticket marked?

   a. Long Sale b. Short Sale

2. An investor buys 500 shares of XYZ and, before the trades settles, enters an order to sell the shares. How is the order ticket marked?

   a. Long Sale b. Short Sale

3. An investor is long 500 shares of ABC stock and long 5 ABC call options, but enters an order to sell 1,000 shares of ABC stock. How is the order ticket marked?

   a. Long Sale b. Short Sale

Threshold Security

Reg SHO defines a Threshold Security as an equity security of a reporting issuer which has:

- An aggregate fail-to-deliver position for five consecutive business days at a clearing agency (e.g., NSCC)
  - Totaling 10,000 shares or more; and
  - Equal to at least .5% of the issuer's total outstanding shares

Regulation SHO has a mandatory close-out for fail-to-deliver positions in a threshold security that have remained open for 13 consecutive settlement (business) days

Threshold securities are included on an SRO published list

Regulation SHO – Rule 204

Rule 204 is designed to further reduce “naked” short selling

Broker-Dealers are Required to Either	Exceptions Exist Under the Following Conditions
1. Deliver the security by settlement date (T+2), or 2. Immediately purchase or borrow the security to close out the fail by no later than the beginning of regular trading hours on the next settlement date following the fail (T+3)	▪ 35 days for transactions in which the client is long, but cannot deliver (Rule 144 transactions and converting bonds) ▪ Two extra settlement days (T+5) for market makers and long sales (in other words, three settlement days from the settlement date)

Regulation SHO – Rule 201

A 10% or more decline from the previous day’s closing price on an NMS security triggers restrictions on the display and execution of short sales

- Firms must have procedures that prevent display or execution (circuit breakers) of a short sale except at a price above the NBB (the alternative uptick rule)
  - Remains in effect until the close of the next day’s trading
  - Order tickets for short sales entered above the NBB are marked “Short Exempt”
- For example, if ABC closed at $50 on Thursday, but then trades at $45 at noon on Friday, circuit breakers will be triggered
  - For Friday and Monday until the close, short sales may only occur at a price above the NBB
- No exemption is made for market making activity

Activity #5 – Reg SHO (Rule 201)

On Monday, XYZ closed at $50; however, on Tuesday, it’s quoted at 44.50 – 44.60.

1. Which of the following orders may be a short sale?

   a. Sell at 44.50 b. Sell at 44.51 c. Sell at 44.49

On Tuesday, XYZ closed at $48; however, on Wednesday, it’s quoted at 49.55 – 49.75

2. Which of the following orders may be a short sale?

   a. Sell at 49.55 b. Sell at 49.54 c. Sell at 49.56

On Monday, ABC closed at $50. On Tuesday, ABC traded at 44.50 and closed at $46. Then, on Wednesday, ABC traded at 41.05 and closed at $44.

3. How long will the short sale restriction apply to ABC stock trades?

   a. End of day on Tuesday b. End of day on Wednesday c. End of day on Thursday

Limit Up-Limit Down (LULD) Rule

Created to prevent trades in individual securities from occurring outside of specified price bands

- Market centers must create and enforce written policies and procedures that comply with the SEC's LULD Rule
- Price bands are determined from a reference price which is calculated based on trades that have occurred over the previous five minutes
- Price Bands:
  - S&P 500 and Russell 1000 = 5%
  - All other NMS securities = 10%
  - $.75 to $3.00 = 20%
  - Less than $.75 = the lesser of $.15 or 75%

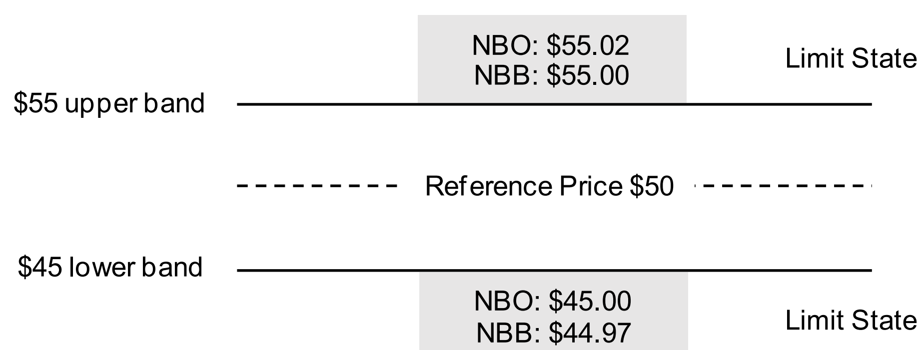
Limit Up-Limit Down Rule

Individual stock circuit breakers:

Regular State	Straddle State	Limit State
LULD trades occur at prices that are equal to or greater than the lower price band or equal to or less than the higher price band	One side of market is outside of the price band (i.e., the NBB is below the lower band or the NBO is above the higher band) (Primary exchange may institute a trading pause, but it's not required)	The NBB is equal to the upper band or the NBO is equal to the lower band

Limit Up-Limit Down Rule

Assuming a reference price of $50 on an NMS security (10% price band):



If the Limit State exists for 15 seconds,
then a five-minute trading pause goes into effect.

Application Questions – Limit State

1. Which of the following represents limit state?
   a. Bid above lower limit
   b. Ask above upper limit
   c. Bid at upper limit
   d. Ask below upper limit

2. Which of the following represents straddle state?
   a. Bid above lower limit
   b. Ask above upper limit
   c. Bid at upper limit
   d. Ask below upper limit

Spoofing/Layering

Spoofing is a manipulative practice that involves bidding or offering for a stock with the intent to cancel these bids or offers prior to execution

- The purpose is to artificially create the appearance of buying or selling interest
- The spoofer places these manipulative orders with the intention of triggering other market participants to place orders against the visible (and presumed real) buy or sell interest
- This may allow a trader to get an order filled on the opposite side of the market

> If the (fictitious) orders are placed at different prices with the intention of cancelling them, this form of spoofing is referred to as *layering.*

Securities Exchange Act of 1934

SEC Rule 10b-18 – Purchase of Equity Securities by Issuers

- Issuer should follow these guidelines:
  - Use only one B/D during the trading day (may use a different B/D for after-hours trading)
  - Purchases may not be the first trade
  - Purchases may not be made within the last 30 minutes of the trading day, for actively traded securities last 10 minutes ($1 million ADTV or $150 million public float)
  - Purchases may not be made at prices higher than the highest independent bid or the last transaction, whichever is greater
  - Purchase volume generally may not exceed 25% of ADTV for that security for the last four weeks

Chapter 5 – Order Handling Rules

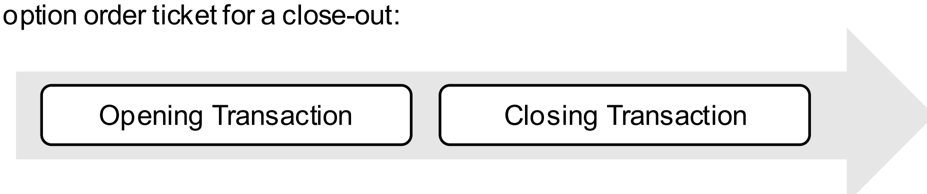
Adjustment for Open Orders and Quotes

The Nasdaq Market Center Execution System automatically adjusts the price and/or size of open orders following certain corporate actions, such as dividends and stock splits

- All bid and offer quotes are removed from the system
- For most corporate actions, buy orders are automatically adjusted down by the system
- Sell orders are not adjusted automatically by the system and must be modified by the market participant that entered the order
- In the event of a reverse stock split, all orders are cancelled
- For cash dividends, adjustments are made on the opening of the Ex-date, which is one business day before the record date
- In the case of a fractional dividend, buy limit orders prices are always rounded down (e.g. if dividend is $.375, a buy limit at 45.50 is reduced to 45.12, or by $.38)

Option Orders

Marking the option order ticket for a close-out:



Opening Purchase	Closing Sale
Opening Sale	Closing Purchase

Complex strategies that consist of more than one option (e.g., spreads and straddles) can be executed on a single order ticket

Brokers may accept; market, limit, and stop orders for single options and complex strategies

If option and stock (e.g. Buy Write); customer may enter as single order, but execution will require two separate order tickets and be reported separately (Note: for covered option, stock trade must be executed first)

Limit Order Display Rule (SEC Rule 604)

If a customer's limit order **IMPROVES** the market maker's quote	▪ The market maker must immediately update its quote to reflect the customer's order ▪ For example, a buy order above its bid or a sell order below its ask
If a customer's limit order is at the **SAME PRICE** as the market maker's quote and the **<u>market maker is at the inside market</u>**	▪ The market maker must immediately update its quote to reflect the customer's order – A de minimis exception is made if the customer's order represents 10% or less of the market maker's already displayed size – Immediately = within 30 seconds

Limit Order Display Rule

	Bid	Ask	Size
Inside Market	31.50	31.75	50 x 10
MM 1	31.50	31.80	50 x 20
MM 2	31.40	31.75	7 x 10
MM 3	31.40	31.88	3 x 5

Market Maker 3 accepts an order to Sell 1,000 at 31.85

- Market Maker 3's quote is now: **31.40 – 31.85 3 x 10**

Market Maker 1 accepts a limit order to Buy 1000 shares at 31.50

- MM 1 must change its quote to: 31.50 – 31.80 **60** x 20

Activity #6 – Limit Order Display Rule

	Bid	Ask	Size
Inside Market	34.55	34.65	50 x 10
MM 1	34.50	34.75	30 x 20
MM 2	34.45	34.65	7 x 10
MM 3	34.55	34.80	50 x 30

1. Market Maker 2 accepts an order: Sell 500 at 34.65
   - Market Maker 2's quote is now:
2. Market Maker 1 accepts an order: Buy 200 at 34.51
   - Market Maker 1's quote is now:
3. Market Maker 3 accepts an order: Buy 500 at 34.55
   - Market Maker 3's quote is now:

Limit Order Display Rule

Exceptions to the Display Rule:

- Customer requests "Do Not Display"
- Orders which are immediately executed once received
- Orders which are sent to another broker-dealer that complies with the Display Rule
- Orders which are sent to an ECN that complies with the ECN Alternative (described next)
- Block-size orders (10,000 shares *or* more, or $200,000 in market value), unless the customer requests that they be displayed
- Odd-lot orders and All-or-none orders

An MM is quoting 45.50 – 45.65 and accepts an order to Sell at 45.60. The MM routes it to a qualifying ECN that's displaying a quote of 45.50 – 45.55.

The MM and ECN quotes are now?

The ECN Amendment

The ECN Amendment was designed to eliminate hidden markets

- If a market maker quotes a better price on an ECN than on Nasdaq, it must update its Nasdaq quote to the improved price

As an alternative to changing its Nasdaq quote, a market maker may use a qualifying ECN

- A qualifying ECN must meet two conditions:
    1. The best prices in the ECN must be communicated to Nasdaq
        - This means that the quote appears on Nasdaq
    2. The ECN must permit access to such orders by other market makers and dealers that are not subscribers to the ECN

Customer Limit Order Protection

The Manning Rule:

- Applies to all equities (Listed/NMS stocks and OTC equities)
- If a market maker accepts a limit order from a customer and then executes an order for its own account at a price that would satisfy the customer's limit order, it must immediately fill the customer's order:
    - At the same price or better price
    - For the same number of shares or more
        - Immediately = within **60 seconds** of an execution for the firm's account

A market maker's Manning obligation applies:

- During Nasdaq normal and extended trading hours
- When limit orders are sent to an ECN (or other entity) for execution

Customer Limit Order Protection

	Bid	Ask
MM1	20.05	20.20

MM 1 is holding a customer limit order to Buy 1,000 shares at 20.05

- If MM 1 buys 1,000 at 20.05 for its own account (to fill an incoming sell order), it must immediately fill the customer at 20.05 or better

If a firm triggers a Manning Obligation, it's required to fill only as much of the customer's order as it has executed for its own account

MM 1 is holding a customer limit order to Buy 1,000 shares at 20.05

- If MM 1 receives a market order to sell 500 shares and executes the order against its own position at 20.05, it must fill 500 shares of the customer limit order at 20.05

Exceptions from the Manning Rule

Orders from Institutional Accounts	Large Orders, Including Those from Retail Customers
▪ These included accounts of banks, insurance companies, registered investment companies, registered investment advisers, or entities with $50 million or more in total assets	▪ 10,000 or more shares and at least $100,000

For these two exceptions, a member firm must **either** provide written disclosures to the customer when the account is opened and annually thereafter, or provide oral disclosures on an order-by-order basis.

- The disclosure must provide the customer with an opportunity to opt into the protection of the rule

Exceptions from the Manning Rule

Intermarket Sweep Orders (ISOs)

No Knowledge Exception

- Provided the firm has an effective system of internal controls (e.g., information barriers), a member firm's other non-market making traders may trade at prices that would satisfy a customer's order

Riskless Principal Transaction

- The rule doesn't apply if the firm trades for its proprietary account for the purpose of facilitating the execution of another customer's order on a riskless principal basis

Price Improving a Market Order

A broker-dealer must price-improve a market order to a non-displayed limit order price

	Bid	Ask	Size
Inside Market	22.15	22.45	10 x 10

MM 1 is holding a non-displayed customer buy limit order at 22.20

MM 1 receives a customer market order to sell 1,000 shares

MM 1 must price improve the market order and execute it at 22.20 (even if the order is sent to an ECN)

Avoid a Manning Obligation

Price-improving a market order to avoid a Manning obligation

	Bid	Ask	Size
Inside Market	22.15	22.45	10 x 10

MM 1 is holding a non-displayed customer buy limit order at 22.20

- If MM #1 buys at 22.21 (.01 higher), it's not required to fill the customer limit order at 22.20
- If non-displayed was a sell limit, then MM 1 could sell .01 lower to avoid Manning obligation
- For OTC equities, minimum price improvement could be less, since they're able to be quoted in sub-pennies

Customer Limit Order Protection

Execution of Two Limit Orders	Market Maker is quoting 14.55 – 14.70 ▪ MM accepts a non-displayed buy limit at 14.65 ▪ The MM then receives a customer sell limit order at 14.62 ▪ What's the MM's obligation? **To execute the incoming sell order at 14.65**
Net Priced Orders	The protected price depends on whether the client has knowledge of the compensation being paid to the market maker ▪ MM receives an order to buy 7,000 shares at 46.25 net from a client. The MM discloses that it's working for a $.10 internal sales credit. The order should be protected at 46.15 If MM does NOT disclose sales credit, the order is protected at 46.25

Activity #7 – Manning Rule

1. A MM is holding a non-displayed customer order to sell 1,000 shares 32.50. If the MM fills an incoming buy order for 500 shares at 32.60, what's its obligation?
   a. Execute the sell order at 32.50 for 1,000 shares
   b. Execute the sell order at 32.50 for 500 shares
   c. Execute the sell order at 32.60 for 1,000 shares
   d. Execute the sell order at 32.60 for 500 shares
2. If a MM is holding a customer order to buy at 32.40, which of the following triggers a manning obligation?
   a. MM executes a buy order for its own account at 32.41
   b. MM executes a buy order for another customer at 32.39
   c. MM executes a buy order for its own account at 32.39
   d. MM executes a buy order for another customer at 32.41

Prohibited Trading Practices

Frontrunning	Occurs when a broker-dealer is in possession of material, non-public information regarding an imminent block transaction and executes an order for an account in which it has an interest
Marking the Close	Executing trades near the close of trading in an attempt to influence a stock's closing price either up or down
Trade Shredding	Occurs when a broker-dealer splits orders into smaller orders for execution, or splits executions into multiple executions with the intent of maximizing a monetary amount
Painting the Tape (Matched Sales)	Trading between market participants to create the misleading appearance of activity without ownership actually changing

The 5% Policy

The policy is a guideline, NOT a rule

- Certain transactions may justify a higher markup; however, there are other situations in which 5% is too high
  - Considerations:
    - Type of security involved (equity or debt)
    - Security availability
    - Price
    - Amount of money involved
    - Pattern of markups
    - NOT type of client or whether the firm will profit

It's important to note that the "5% Policy" was created at a time (1943) when spreads were wider and the markets were not as liquid and efficient as they are today.

The policy excludes:

- Trades involving securities that are sold by prospectus or offering circular (e.g., new issues and mutual fund shares)

The 5% Policy

Applies to commissions and markups on agency, principal (including riskless), and proceeds transactions with customers

- Proceeds transaction – when a client directs a B/D to liquidate securities and use the proceeds to buy other securities
    - Markup is calculated based on one trade (as if done for cash)

Markup is generally based on inside market, not dealer's cost

- If no competitive market exists, contemporaneous cost is used (what one B/D will pay another B/D at time of client's trade)

Riskless Principal/Net Transactions

A dealer buys into inventory to fill pre-existing customer orders

If customers are charged the same price as paid by the B/D plus a markup	
▪ Capacity is disclosed as riskless principal	▪ Volume is reported as a single transaction
▪ Markup is disclosed	▪ No approval is required from the customer

If customers are charged a different price than paid by the B/D
▪ Capacity is disclosed as a net basis trade (only the net price paid by the customer is disclosed) ▪ Volume is reported for the B/D and the customer ▪ For non-institutional (retail) customers: Prior to executing net trades, written consent must be obtained on an order-by-order basis ▪ For institutional customers: Oral permission before each net basis transactions OR Written permission before each net basis transaction OR Blanket permission through the delivery of a negative consent letter

Chapter 6 – The New Issue Market

Securities Act of 1933

Regulates the primary market and requires securities to be registered unless they are:

- Exempt from registration (e.g. government securities and money market instruments) or sold under an exemption

Exempt Transaction: Regulation D – Private Placement

- A sale of securities directly to “accredited” investors (and to a maximum of 35 non-accredited investors)
- No limit on number of accredited investors

Officer / director of issuer

Institutions

Individuals who have met a financial test

Net Worth	OR	Annual Income
$1 million (exclusive of primary residence)		$200,000 in each of the last two years and currently ($300,000 if joint)

The New Issue Rule

Restricts a member firm’s ability to sell equity IPOs to accounts in which a restricted person has a beneficial interest

- Restricted persons include:

Member firms and all associated persons (owners, officers, directors, or other employees)

Associated person’s immediate family (spouse, children, parents, siblings, or in-laws) if any one of three conditions apply:

1. There is material support or the sharing of a household
2. The purchase is made through the associated person’s firm
3. The associated person controls the allocation of shares

Finders and fiduciaries (e.g., attorneys and accountants)

Portfolio managers purchasing for themselves

The New Issue Rule

1. General Exemptions	2. Pre-Conditions for Sale
▪ An account that includes restricted persons, provided their combined ownership does not exceed 10% (*de minimis*) ▪ Issuer-directed sales (only if the associated person or an immediate family member is an employee/director of the issuer) ▪ Portfolio managers purchasing for the fund	▪ Written or electronic (not oral) verification must be obtained regarding the eligibility of purchasers and financial conduits

Dutch Auction

A single price auction in which all winning bidders pay the same price

Rather than the underwriter setting the POP (as occurs in most public offerings), the POP is based on the bids that are entered by potential buyers

In a *modified Dutch auction*, the buyers must enter a bid within a specified range

- The issuer will start by accepting the highest bid and continue to accept bids until all shares are sold
- The last bid accepted will be the clearing price and all accepted bids will pay that price
- Bids below the clearing price will not be filled
- If more shares are bid for at the clearing price than are being offered, all bids are filled on a pro rata basis

*A **Dutch auction** is a method for pricing shares (often for an IPO) whereby the price of the shares being offered is lowered until there are enough bids to sell all of the shares. At that point, all shares are sold at that price.*

Activity #8 – Modified Dutch Auction

A corporation announces that it's issuing 10 million shares of common stock. The offering will be conducted as a modified Dutch auction with a price range from $45 to $48 per share. The following bids are entered by potential buyers:

4 million shares at $45
3 million shares at $46
4 million shares at $47
5 million shares at $48

Which of the following statements is TRUE of the auction result?

a. The clearing price is $45 and 10 million shares are issued.
b. The clearing price is $46 and 10 million shares are issued.
c. The clearing price is $46 and 12 million shares are issued.
d. The clearing price is $47 and 9 million shares are issued.

Regulation M - Overview

Reg M was created to prohibit manipulative conduct by persons that have an interest in the outcome of an offering

Rule	Covers
Rule 101	Bids and purchases by distribution participants, including underwriters and selling group members
Rule 102	Bids and purchases by the issuer and selling shareholders
Rule 103	Passive market making
Rule 104	Stabilization and short covering
Rule 105	Short selling in connection with certain types of offerings

Regulation M – Restricted Period

Rules 101 and 102 of Regulation M apply to the trading of Covered Securities during the restricted period
The restricted period:

Begins *one business day* prior to pricing	Securities with an ADTV of at least $100,000 and a public float with a market value of at least $25 million
Begins *five business days* prior to pricing	All other securities

- During this period, the issuer and selling shareholders are prohibited from purchasing or bidding for the Covered Security
- Restrictions vary for distribution participants (i.e., the underwriters and selling group)

The restricted period ends when the distribution is completed

Reg M – Rule 103 (Passive Market Making)

During the restricted period, distribution participants usually act as passive market makers (PSMM); they provide liquidity, but cannot bid the price up

- PSMM may not bid, or purchase, at a price exceeding the highest independent bid
- However, if an independent MM lowers its bid and leaves the PSMM as the highest bid, the PSMM may maintain its bid until it:
  - Purchases the lesser of two times the minimum quote size or
  - Reaches its daily purchase limit (DPL)

Passive market making is permitted only for Nasdaq (not OTC equity) securities if:

- There's at least one independent market maker
- Disclosure is made in the offering's prospectus
- The managing underwriter sends notice to FINRA by no later than one business day prior to the start of the restricted period

Activity #9 – Passive Market Making

Four market makers are displaying the following bids for a Nasdaq stock:

MM A	39.00	PSMM
MM B	38.90	PSMM
MM C	38.80	
MM D	38.70	

MMA is preparing to lower its bid in compliance with Regulation M. What's the highest price to which MMA may drop its bid?

a. 38.90
b. 38.80
c. 38.70
d. 38.69

Reg M – Rule 103 (Passive Market Making)

Daily Purchase Limit (DPL)

- A passive market maker's daily purchase limit is *the greater of* 30% of its ADTV in the stock, or 200 shares
- Once a passive market maker's net purchases (purchases in excess of sales) for the day exceed its purchase limit, it must withdraw from the market for the rest of the day

A passive market maker that's close to its limit is allowed to execute any <u>single order</u> even though the daily limit will be exceeded

- However it cannot display a quote in excess of its DPL

Application Question

A passive market maker has a DPL of 8,000 shares and has made net purchases of 7,800 shares. If the market maker receives an order from a customer who wants to sell 500 shares, the market maker:

a. Must refuse the order since this will exceed its DPL
b. May only buy 200 shares from the customer since this will reach its DPL
c. May buy 500 shares from the customer, but only if it sells 300 shares within 30 seconds
d. May buy the shares from the customer and then withdraw from the market for the rest of the day

Passive or Active Market Maker?

Additionally, distribution participants acting in a passive capacity may:

- Execute unsolicited customer orders
- Solicit offers to purchase the securities being distributed

If a security is very liquid (actively traded), distribution participants may engage in active market making during the restricted period

- Actively traded is defined as a security with ADTV of at least $1 million and a public float with a market value of at least $150 million

> This exception for actively traded securities is not available for the issuer and selling shareholders.

Regulation M – Summary

The length of the restricted period and permissible activities are based on the liquidity of the security and the status of the bidder or buyer

	Restricted Period		
Buyer Status	**Illiquid Stocks**	**Moderately Liquid Stocks (ADTV of $100,000)**	**Actively Traded Stocks (ADTV of $1 million)**
Distribution Participants	Five days (passive)	One day (passive)	No restriction
Issuers and Selling Shareholders	Five days (no activity)	One day (no activity)	One day (no activity)

Regulation M and IPO Allocations

Regulation M also applies to initial public offerings by preventing underwriters and B/Ds from influencing the new issue price prior to the completion of the distribution	During the distribution period for an offering of securities (regardless of whether it's oversubscribed), it's a violation to allocate IPO shares based on placing prearranged purchase orders in the aftermarket at specified prices
Tie-in arrangements may inflate the aftermarket price of the IPO and are considered manipulative	During a distribution, firms may not ask clients about the price they would be willing to pay for the security in the aftermarket

Regulation M – Stabilization

Permits the syndicate to purchase shares in the secondary market in order to prevent a price decline

- Only one syndicate member may enter a stabilizing bid
- Principal market on which the stock trades must be notified
- Stabilizing bid may not exceed the public offering price
- Once entered, bid may be maintained at that level regardless of any changes in independent bids or trade prices
- An unlimited number of purchases may be made at this bid
- Stabilizing bids may remain in effect for an unlimited period

Stabilizing is prohibited unless the purpose is to prevent or retard a decline in the market price of a security.

Regulation M

Short Sales in Connection with an Offering
If a short sale is executed within the five-business-day period prior to the pricing of a new issue, shares of the new issue may not be purchased by the short seller
This rule is designed to minimize the possibility that the short seller could benefit from the impending issuance of shares at an anticipated price and use those shares to cover the short position
Bona Fide Purchase Exception – allows a person who was not aware of the offering, or changes her mind, to close out the short sale at least one business day prior pricing and still purchase the offered securities

Chapter 7 – Trade Reporting

Trade Reporting – TRF and ORF

Trade Reporting Facility (TRF)	OTC Reporting Facility (ORF)
For Nasdaq and third-market securities (NMS)	OTC equities (OTCBB and Pink Marketplace)

All trades that are executed between 8:00 a.m. and 8:00 p.m. ET must be reported by no later than 10 seconds after execution

- Trades executed outside these hours must be reported within 15 minutes of the opening of the reporting system (by 8:15 a.m.) on the next business day

Trades that are executed in foreign markets are excluded from reporting if they're reported by the foreign exchange and/or regulator

Trade Report

What's reported?

- Nasdaq symbol
- Number of shares
- Price (not including markups, markdowns, or commissions)
- Whether the trade is a buy, sell, or cross
- Time of execution
- Whether it's a short sale

Trades that are not reported to the TRF or ORF are reported on **Form T**

- Justification:
  - There's no symbol for the security
  - Trade is more than one year old

Special Clearing Arrangements

Give-Up Report

- When B/D 1 reports and locks in trades with the TRF on behalf of B/D 2
- B/D 2 agrees to accept and clear the trades that have been reported on its behalf
- To establish the relationship, both B/Ds must file necessary forms with Nasdaq
- If not reported appropriately, both firms are responsible

Step-Out Report

- After trade / no written agreement
- When a B/D that previously executed and reported a trade to the TRF and then allocates all or part of the trade to another B/D for clearing purposes (no new trade report)
- A clearing-only report is submitted to the TRF
- Used to transfer the customer's position, but not report the trade

Trade Modifiers

.Z	Late trade report (not within 10 seconds)
.T	After-hours trade
.U	Late trade report after-hours
.O	Price override
.W	Weighted average or Stock-stock transaction
.P	Prior reference price (late execution); used to report a trade that should have been executed at an earlier time
.C	Cash trade; settles on the same day as the trade
.N	Next day trade; will settle on T + 1
.R	Extended Settlement or Seller's Option; settles after regular-way

Activity #10 – Trade Modifiers

1. What modifier is used for a trade that was executed at 9:45 a.m., but not reported within 10 seconds?

   a. .T b. .U c. .Z d. .C

2. What modifier is used for a trade that was executed at 8:15 a.m., but not reported within 10 seconds?

   a. .T b. .N c. .Z d. .U

3. What modifier is used for a trade that was executed at 6:00 a.m. and reported at 8:10 a.m.?

   a. .R b. .T c. .Z d. None

4. What modifier is used for a trade that should have been executed at 9:40 a.m., but was not executed until 10:10 a.m.?

   a. .P b. .U c. .Z d. .W

Order Audit Trail System (OATS)

Records the life of an order from receipt, to routing, to modification (if applicable), to cancellation or execution

Information that must be reported to FINRA in an OATS report includes the following:

- From whom the order was received (customer or another member)
- Order identifier
- Date and time of receipt
- How the order was received
- Terms of the order (buy, sell, short, price, account type, order routing, etc.)

OATS reports must be transmitted daily (by the next calendar day)

Order Audit Trail System (OATS)

Reports are due by 8:00 a.m. on the **calendar** day following the end of the OATS business day

- The OATS business day is from 4:00:01 p.m. on one market day to 4:00:00 p.m. on the next market day
- A trade that's executed at 4:20 p.m. on Thursday is part of Friday OATS business and reported on Saturday (not Monday)

Daily Synchronization	Daily synchronization is required of both computerized clocks and mechanical time stamping devices to within one second of NIST clock
Orders Defined	Orders are defined as any oral, written, or electronic instructions to execute a transaction (voicemail is not considered an order)
OATS Rules	OATS rules apply to customer orders and those of other broker-dealers, but NOT to transactions that originated from proprietary trading desks or the firm's market making quotes

Chapter 8 – Settlement and Clearance

Regular-Way Settlement

Unless a specific exception is made, settlement (the payment of funds by the buyer and delivery of securities by the seller) will occur as follows:

Type of Security or Trade	Settlement day
Corporate securities	Second business day after the trade (T + 2)
Municipal securities	Second business day after the trade (T + 2)
U.S. government securities	Next business day after the trade (T + 1)
Options trades	Next business day after the trade (T + 1)
For "Cash" for any security	Same day

Regulation T Payment Date

According to the Federal Reserve, Regulation T payment must be obtained for purchases in cash or margin accounts within two business days of settlement (T + 4 or S + 2)

- Extension may be granted by firm's SRO

If no payment is made and no extension granted, the position is closed-out (securities sold) at-the-opening (ATO) of the next business day

- Account is frozen for 90 days
- While frozen, all transactions must be paid for **in advance**

Clients may not use the proceeds of a liquidation to meet Reg. T on the same securities (no free-riding)

Basic Option Strategies

Short-Term Speculation: Long positions are used for high risk, high reward price speculation

Bullish Speculation	**Long (Buy) Calls**
Bearish Speculation	**Long (Buy) Puts**

To Generate Income: Short sellers receive premium income in exchange for accepting high risk

Bullish and want Income	**Short (Sell) Puts**
Bearish and want Income	**Short (Sell) Calls**

Hedging and Covered Options

Long Options can be used to protect positions in the underlying asset

Protect Long Position	**Long (Buy) Puts**
Protect Short Position	**Long (Buy) Calls**

Selling Covered Options adds income, but the option risk is offset by a position in the underlying asset

Income on Long Position	**Sell Covered Calls**
Income on Short Position	**Sell Covered Puts**

Index Options

If an equity option is exercised, 100 shares of the stock are delivered within two business days; however, if an index option is exercised, cash must be delivered by the next business day

ETF and ETN options are settled by delivering the underlying shares, not cash.

The Volatility Index (VIX) is a barometer of investor sentiment and expected market volatility based on the premiums for S&P 500 Index options over the next 30 days (VIX options are broad-based)

- Referred to as “the fear index” (moves in the opposite direction of the market)
- If BEARISH on the market, BUY CALLS on VIX
- VIX options use European exercise

Straddles and Combinations

Created by either:

- **Buying both** a call and a put on the same underlying security OR
- **Selling both** a call and a put on the same underlying security

Strategy

- Long straddle or combination: **VOLATILITY**
- Short straddle or combination: **STABILITY**

STRADDLE

- Same expiration months and same strike prices

COMBINATION

- Different expiration months and/or strike prices (If strike prices are different, it may be referred to as a *Strangle*)

If an investor has one option component and adds another to create a multiple option position, he’s considered to have *legged* into the position.

Straddles – Analysis

Long Straddle – Expects large price swing in either direction (high volatility)

Long 1 ABC Jun 55 Call at 3
Long 1 ABC Jun 55 Put at 2

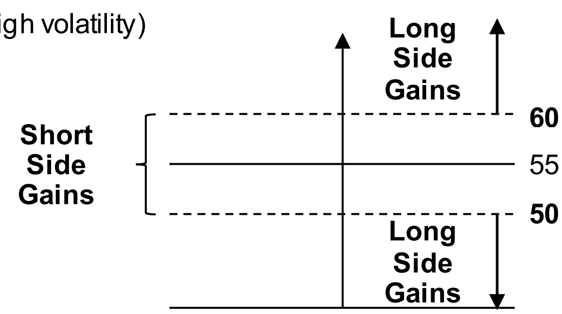
Short Straddle – Expects stable prices (low volatility)

Short 1 ABC Jun 55 Call at 3
Short 1 ABC Jun 55 Put at 2

The total (combined) premium is 5

BREAKEVEN POINTS:

55 + 5 = 60 and
55 – 5 = 50



LONG SIDE MAXIMUM GAIN: **UNLIMITED**

SHORT SIDE MAXIMUM GAIN: **$500 PREMIUM**

Spreads

Positions which allow an investor to limit losses in exchange for limiting gains

- Created with the sale and purchase of two options of the <u>same</u> *class,* but <u>different</u> *series*
  - Class: options of the same type on the same underlying security
  - Series: options of the same class, same expiration, and same strike prices
- Spreads may be either bullish or bearish
  - Debit Call and Credit Put spreads are Bullish
  - Debit Put and Credit Call spreads are Bearish

<u>**Price/Dollar/Vertical**</u>	<u>**Time/Calendar/Horizontal**</u>	<u>**Diagonal**</u>
Buy 1 ABC Jun **40** Call Sell 1 ABC Jun **50** Call	Buy 1 XYZ **Dec** 40 Call Sell 1 XYZ **Sep** 40 Call	Buy 1 DEF **Sep 40** Put Sell 1 DEF **Mar 30** Put

Ratio Spread: Long and Short a different number of options
(e.g. Long 3 XYZ Jun 40 Call and Short 5 XYZ Jun 50 Call)

Working with Spreads

Since spreads consist of both a long and a short leg, subtract the premiums to determine the net investment

- If the buy leg has higher a premium, then the net premium is negative (paid) = Debit spread
- If the sell leg has higher a premium, then the net premium is positive (received) = Credit spread

Buy 1 ABC Jun 40 Call at 6 Sell 1 ABC Jun 50 Call at 2 **Debit - 4**	Sell 1 ABC Jun 40 Call at 6 Buy 1 ABC Jun 50 Call at 2 **Credit + 4**

RULES	

RULES

- If a spread expires out-of-the-money:
  - A debit spread will lose the net premium paid
  - A credit spread will gain the net premium received
- For a vertical spread, the maximum value (in-the-money amount) is the difference between the strike prices
- Debit spreads will gain the spread between the strike prices minus the net premium paid
- Credit spreads will lose the spread between the strike prices minus the net premium received
- The sum of the maximum gain plus maximum loss will equal the spread between the strike prices

Activity #11 – Spreads (Gain versus Loss)

Sell 1 XYZ Feb 80 Call at 2 Buy 1 XYZ Feb 70 Call at 5

1. Maximum Gain:
2. Maximum Loss:

Buy 1 XYZ Feb 80 Put at 7 Sell 1 XYZ Feb 65 Put at 2

3. Maximum Gain:
4. Maximum Loss:

Buy 1 XYZ Feb 90 Call at 3 Sell 1 XYZ Feb 85 Call at 5

5. Maximum Gain:
6. Maximum Loss:

Activity #12 – Spreads (Bull versus Bear)

Buying the **LOWER** strike price option creates a **Bullish** Spread Buying the **HIGHER** strike price option creates a **Bearish** Spread	**This is true for both Call and Put spreads**

1	Buy an XYZ Nov 90 Call Sell an XYZ Nov 80 Call	A. Bullish	B. Bearish
2	Buy an ABC Nov 70 Call Sell an ABC Nov 80 Call	A. Bullish	B. Bearish
3	Short an MNO Mar 35 Put Long an MNO Mar 40 Put	A. Bullish	B. Bearish
4	Write an CBT Mar 40 Put Long an CBT Mar 30 Put	A. Bullish	B. Bearish

Advanced Option Strategies

Butterfly and Condor strategies are types of spreads (i.e., all the options are the same type)

- **Butterfly Spreads** consist of four options, but only **three different strike prices**
  - Two options are at the middle strike price, one option is at a higher strike, and one option at the lower strike
- **Condor Spreads** have four options with **four different strike prices**

In both cases, if the **middle leg(s)** of the spread is/are **short,** it's a **neutral** strategy. However, if the **middle leg(s)** is/are **long,** it's a **volatility** strategy

Neutral Butterfly Spread	Buy 1 ABC Jun 60 Call at 1 Sell 2 ABC Jun 50 Call at 2 Buy 1 ABC Jun 40 Call at 6	Max loss: Debit of $300 at MP of 40 or 60 Max gain: $700 at MP 50
Neutral Condor Spread	Buy 1 ABC Jun 55 Call at 1 Sell 1 ABC Jun 50 Call at 2 Sell 1 ABC Jun 45 Call at 3 Buy 1 ABC Jun 40 Call at 6	Max loss: Debit of $200 at MP of 40 or 55 Max gain: $300 MP 45-50

Advanced Option Strategies

Iron Butterfly and Iron Condor strategies are combinations (i.e., both calls and puts are used)

- **Iron Butterfly** consist of four options, but only **three different strike prices**
  - Two options are at the middle strike price, one option is at a higher strike, and one option is at the lower strike
- **Iron Condor** has four options with **four different strike prices**

In both cases, if the **middle legs** are **short,** it's a **neutral** strategy. However, if the **middle legs** are **long,** it's a **volatility** strategy

Neutral Iron Butterfly	Buy 1 ABC Jun 60 Call at 2 Sell 1 ABC Jun 50 Call at 4 Sell 1 ABC Jun 50 Put at 3 Buy 1 ABC Jun 40 Put at 1	Max gain: Credit of $400 at MP of 50 Max loss: $600 at MP 40 or 60
Volatility Iron Condor	Sell 1 ABC Jun 55 Call at 3 Buy 1 ABC Jun 50 Call at 4 Buy 1 ABC Jun 45 Put at 2 Sell 1 ABC Jun 40 Put at 1	Max loss: Debit of $200 at MP of 45-50 Max gain: $300 at MP 40 or 55

Activity #13 – Identification of Spreads

Identify the following option positions and their strategies.

Position 1
Buy 1 ABC Jun 60 Put at 9 Sell 2 ABC Jun 50 Put at 4 Buy 1 ABC Jun 40 Put at 2

1. Position name?
   a. Butterfly
   b. Iron Butterfly
   c. Condor
   d. Iron Condor
2. Strategy?
   a. Neutral
   b. Volatility

Position 2
Buy 1 ABC Jun 55 Call at 3 Sell 1 ABC Jun 50 Call at 4 Sell 1 ABC Jun 45 Put at 2 Buy 1 ABC Jun 40 Put at 1

1. Position name?
   a. Butterfly
   b. Iron Butterfly
   c. Condor
   d. Iron Condor
2. Strategy?
   a. Neutral
   b. Volatility

Position 3
Sell 1 ABC Jun 60 Call at 2 Buy 1 ABC Jun 50 Call at 4 Buy 1 ABC Jun 50 Put at 3 Sell 1 ABC Jun 40 Put at 1

1. Position name?
   a. Butterfly
   b. Iron Butterfly
   c. Condor
   d. Iron Condor
2. Strategy?
   a. Neutral
   b. Volatility

Position 4
Sell 1 ABC Jun 55 Put at 9 Buy 1 ABC Jun 50 Put at 6 Buy 1 ABC Jun 45 Put at 3 Sell 1 ABC Jun 40 Put at 2

3. Position name?
   a. Butterfly
   b. Iron Butterfly
   c. Condor
   d. Iron Condor
2. Strategy?
   a. Neutral
   b. Volatility

Final Preparations

- Complete Final Exams; reading all explanations
- Review your notes
- Call 800-782-3926 if you have questions or need assistance
- Make sure you have all of your proper identification to enter the exam (Be sure your driver's license or passport has not expired !!)
- Check ***www.stcusa.com*** for possible course updates

Answer Key

Page 5 – Activity 1
1. II and III
2. I and IV
3. D

Page 11 – Activity 2
1. Bid 22.65 – Ask 22.80
2. C
3. B
4. C

Page 12 –Activity 3
1. $19.90
2. $19.88
3. C

Page 17 – Activity 4
1. A
2. A
3. B

Page 18 – Activity #5
1. B
2. C
3. C

Page 20 – Application Questions
1. C
2. B

Page 22 – Activity #6
1. 34.45 – 34.65   7 x 15
2. 34.51 – 34.75   2 x 20
3. 34.55 – 34.80   50 x 30 (de minimis)

Page 26 – Activity 7
1. D
2. C

Page 29 – Activity #8
B

Page 30 – Activity #9
B

Page 31 – Application Question
D

Page 34 – Activity 10
1. C
2. D
3. B
4. A

Page 40 – Activity#11
1. $700
2. $300 net premium
3. $1,000
4. $500 net premium
5. $200 net premium
6. $300

Page 40 – Activity 12
1. B
2. A
3. B
4. A

Page 42 – Activity #13

Position 1:
1. A
2. A

Position 2:
1. D
2. A

Position 3:
1. B
2. B

Position 4:
1. C
2. B