

TRADING GAME: FINANCIAL SOFTWARE

TABLE OF CONTENTS

IMP: There are movies on how to use the trading software; see Blackboard

I. Starting the Game: Read This NOW

- A. *Factors Affecting the Grade*
- B. Procedures
- C. What to Watch Out for in the Trading Game
- D. Questions!
- E. Quotes and Trading Instruments
- F. Help!

II. More Information About the Game: Read This After You Start Trading

- A. A Few Ideas About the Game
- B. Objectives of the Game

III. Organizing the Report

- A. Warnings Concerning the Report
- B. *The Cover Sheet*
- C. Formatting and What to Omit

IV. Writing the Report ... The Questions to Answer

I: STARTING THE GAME READ THIS SECTION IMMEDIATELY!

* **There are movies on Blackboard that will show you how to open a “Paper Money Trading Account” on Think or Swim** and then how to use the trading software. Make sure to read below about **sending your username ON BLACKBOARD so we can update your usage of Think or Swim**. If you do not do this **now** then you will NOT have the same access as everyone else! Thus, (see next items as well as the movies) ..

** **Using Internet Explorer** go to www.TDAmeritrade.com and click on “Open an Account” (see the movie). You do not need to send them real money. You must complete the ENTIRE application EXCEPT the funding page. The objective is to obtain a paper money trading account. Once you fill out the application they will send you an email with your name and username only! **Once you have this verification then POST your username only) to the TOS username Discussion Board listed on Blackboard so we can tell them to extend your access to the trading software platform and to activate real time quotes (and other stuff)! PUT THE USERNAME IN THE SUBJECT LINE!** (The papermoney account typically lasts only two weeks but Think or Swim will provide it to you for a longer time.)

* You then go to TDAmeritrade and download the software. You may download it to multiple computers. When you click on the icon the program loads and the sign in box comes up. **MAKE SURE to choose “Paper Money” otherwise you can not trade as you will be in the “real money” account! REMEMBER, WATCH the movies on Blackboard about TOS!**

* Anytime you come to the sign in box for TOS there is a box at the lower left that says “configure”. One item you can configure is the colors. The default is a black background. You can change to white (this may be useful when printing assignments).

* You may also use the internet to make trades (not as nice, but functional).

* TOS is a very sophisticated software trading program. You will not learn “everything” about TOS. Concentrate for now on how to make trades. There are **movies on Blackboard** on how to use TOS for what you need to do for the course!

** **HINT:** Watching the movies on how to use the software will save you time and frustration. Then trying some trades (at first just with stocks) will provide confidence you can use the software effectively. Few people have experience with trading, hence they are not “comfortable” with making a trade (either). One objective of the trading game is to provide experience in trading AND to avoid panic attacks!

* **BEFORE THE FIRST CLASS YOU CAN SIMPLY “BECOME FAMILIAR WITH THE PROGRAM” .. WAIT UNTIL AFTER THE FIRST CLASS TO START TRADING.**

* Adjusting cash to \$500,000 (see movie): Before you can make the cash adjustment in TOS you must put in an order (it does NOT have to execute).

* After you (later) start trading then you can concentrate on the details (see below).

* You CAN trade at night (after work). You can put in market or limit orders at that time. Perhaps you will not maximize your profits, but you will increase your grade! These orders will be executed at the open on the next trading day unless an electronic version of the market is open at night.

* Do NOT day trade (buy and sell the same instrument the same day) ... they do not count for this course.

A. FACTORS AFFECTING THE GRADE

- **Promptness** in starting
** A BIG problem some people have is to constantly postpone trading!!
- **Account activity:** how much you trade (you need to have reasonable activity! Be active in your trading, not just one or two trades each month!).
- **Trading the relevant instruments:** there are a number of different types of instruments to trade. Moreover, trading allows you to understand the markets as well as determine how you react to stress (well, maybe not as much as if was real money, but you might be surprised). You should include stocks on the NYSE/NASDAQ, ETF index products in the U.S. (such as SPY, DIA, QQQQ), ETFs on stocks outside the U.S., ETFs (ETNs) on non-stocks, currencies (FX), and at least some futures and options. We will discuss them. (Note: you can obtain information on ETFs on the web or obtain a list on Think or Swim.)
- Provide a limited Report on your activities at the end of the term (see instructions below). The report will ask about what you did and why.
- **FOLLOW INSTRUCTIONS!** Read the instructions first, then ask questions.
- **PERFORMANCE** does NOT adversely affect your grade! (Nor does it help it ... that is because people can cheat with the paper money TOS!)

Note: For “the number of trades” to make: see Section C.

You may discuss possible trades, mechanics of trading, and how to do the report with other students. BUT do NOT have an almost identical set of trades! And do not essentially copy their answers to the questions!

** **HINT:** First learn how to play the game. Few are “comfortable” trading, so do not let that “freak you out.” Later concentrate more on the details given in these instructions (and later sections of these instructions).

B: PROCEDURES

- Trades are made on the Think or Swim trading platform that you download from the Web. ***HOW to use Think or Swim is shown on movies on Blackboard!***
- **NOTE: Only recorded trades will count - so make sure your trades are executed and therefore show up on Think or Swim!!**
- After we “upgrade” your account you will have \$500,000 to trade futures. But do not go overboard and buy too many risky futures contracts (watch the size traded also!)

C: WHAT TO WATCH OUT FOR IN THE TRADING GAME

Trading Issues

- * **Keep a position for at least one day!** No day trading!
- * Trades made after the Report due date or before the first class do not count game.
- * There IS a limit to the amount of trading that you can do (and the amount of futures trading): this is based on the size of the margins for your current positions.
- * Do not make more than 100 total trades (few people come close to this anyway).
- * “FOREX” is trading cash foreign exchange. “RCL” and “ROP” are designations by TOS for cash accounting positions and do NOT count for us.
- * Some futures contracts can be mispriced sometimes by Think or Swim; if your account increases one day by hundreds of thousands of dollars then check this; YOU are responsible to make sure it is being done correctly (it is your money, and a large gain or loss without merit implies you do NOT know what you are doing!!)

D: QUESTIONS!

- **“How is the game graded?”** There are over 30 separate items used to grade the project. Therefore, do NOT concentrate on just one or two things such as the “number of trades.” Points for most items are on a “marginally decreasing” scale such that any item (e.g. more trades) earns more points, but the increase in the number of points keeps getting smaller with more trades. Maximums apply. Simply follow the instructions and you will do very well.
- **“How many trades should I make?”** Play the game with one eye on learning how to trade/learn about how the markets work, and one eye on the instructions. If you take the game as a learning experience then you will make sufficient trades so that you will not have to “worry about the number of trades.” The points for the “number of trades” has a declining marginal utility curve, so more trades gives you more points (up to a reasonable maximum) but the marginal benefit of a large number of trades is very small. Typically individuals make 25 to 40 trades, **but what** you trade is more important than the number of trades (see instructions)! Also, “opening positions” are more important than the total number of trades. And there are many other items that are graded!
- **“How much time should I put into the game?”** It depends on your life and course objectives. You can spend a minimal amount of time if you are very efficient, or if investments is not important to you (but who knows 5 or 10 years from now?).
- “I am having problems trading, what do I do?” See the movies; ask questions; ask fellow students. Or post a question on the Bulletin Board!

E. QUOTES AND TRADING INSTRUMENTS

Trade stocks first, they are the easiest. Later we will talk about foreign exchange, and then futures and options!

Stocks: simply type in the “quote” box at the top of the “trade” page the name of the company and the symbol will appear. Click on it!

35.25 is \$35.25 per share; purchase in blocks of 100 shares (or more)

NOTE: In the trade tab you click on the “ask” price if you want to buy and you click on the “bid” price if you want to sell. You can then change the price if you want to place a limit order.

“Index” ETF (Exchange Traded Funds) Stocks: DIA for Dow Jones, SPY for S&P500; QQQQ for Nasdaq.

Trading and limit orders:

- ▶ Buy (long): “buy to open” is taking a long position in an instrument. You profit if the stock increases in price.
- ▶ Sell (short): “sell to open” is a short position. You profit if the stock decreases in price.
- ▶ Limit order: you can place an order to buy at say 14 or better ... this limit order is only executed if the price falls to 14 or less. Similarly a limit order to sell at 13.50 will only execute if the price rises to 13.50 or higher.

Futures (including stock index futures)

“Underlying value” of the futures is the price times the number of units

What is important: “the **change** in price X the number of units” is the profit/loss

Ex: E-mini S&P 500 stock index futures increase by ten points:

if you buy then the profit is $10 \times \$50 = \500 for each contract

The trade symbol is “/ES” (without the quotes)

Note: You only "deposit" the futures margin; but can lose much more!

Making a trade in futures: You first need the “code” to put in the symbol window. The format for a futures code is: /CC where CC is the two letter code; for example /NQ is the Nasdaq futures. Then a list of expiration months show on the page. You click on the blue arrow at the left to see prices.

Codes can be found at the exchanges such as The Chicago Merc www.cmegroup.com

Examples of codes for electronic futures markets:

Emini S&P 500 futures: /ES

Emini Dow Jones futures: /YM

Nasdaq emini: /NQ

British pound: /6B

Euro currency: /6E

Japanese yen: /6J

oil: /CL or /QM

gold: /ZG

Eurodollar: /GE

Options

In the symbol box type in the asset (stock) name or its symbol then a list of option months will appear.

1 ½ is \$1.50 per unit; one stock option is for 100 shares (units) or a cost of \$150
S&P stock index options cost 100 times the listed option value

Other options state what you multiply by the price index to find the value

Buying a CALL option: gives you the right to BUY the stock at the “strike” price

Buy a call if you think the price will go up.

Buying a PUT option: gives you the right to SELL the stock at the “strike” price

Buy a put if you think the price will go down.

When you BUY an option you only pay the cost of the option; the most you can lose is the cost of the option when you buy.

Example of an option trade: put in the stock or index or ETF code into the “symbol” box (or put the name in and choices will be shown). Click on the options tab. Click the month you want then you can click the bid or ask for the strike price you want to trade.

F: HELP!

- ▶ See the movies on Think or Swim again.
- ▶ Ask questions in class.
- ▶ If your answer is not there then bring it up in class or put it on the Bulletin Board in Blackboard.

II. MORE INFORMATION ABOUT THE GAME: WHAT TO READ AFTER YOU START TRADING

A. A FEW IDEAS ABOUT THE GAME

- ▶ See above for “Factors Affecting the Grade” and pay attention to them - especially what to trade and when to trade. Be ACTIVE in your trading!
- ▶ Think or Swim is **real time** (once your username is sent to TOS). In order to limit

- your activity you can NOT open and close the trade in the same day.
- ▶ You could think about developing a “strategy” as the term progresses - that is a method or procedure - about how or why you make many of your trades. Thus, how might you decide on trades with real money? Would you use astrology? Or news? Fundamentals (even if only basic fundamentals).
 - ▶ You CAN put in a trade at night (or the weekend) if you do not have time/access during the day! The trade will be executed the next morning. Some futures trade 24 hours a day.
 - ▶ At the end of the term **you do NOT need to close your positions.**

B: OBJECTIVES OF THE GAME

- ▶ To learn about the instruments and the **factors** that affect them!
- ▶ To learn how to trade and all the aspects involved with trading.
- ▶ To keep abreast of the current market situation.
- ▶ To see how you react to “the pressure of trading” (not graded): Thus, as you trade notice whether you do the following:
 - a. Panic when prices go down? Get greedy when prices are going up?
 - b. Avoid selling losers?
 - c. Determine your tradeoff between risk and return.

The trading game is an example of “problem-based learning.” Thus, the trading game uses “real world” problems as the basis for you to acquire information and to develop critical thinking and problem-solving skills. Characteristics of PBL are:

- ▶ The goals of the project are your own (learning about a topic and the association with real world activities)
- ▶ You must accept responsibility for much of the learning
- ▶ You participate in the planning and structure of the output
- ▶ You engage in active learning
- ▶ You bring your own prior knowledge and experiences into the learning environment and integrate them
- ▶ You are responsible for generating and evaluating learning resources
- ▶ The situations are anchored in real contexts, making the connection between the classroom and application
- ▶ You acquire fundamental knowledge in a context of problem solving

Notice that these activities:

- ▶ are “ill-structured”
- ▶ present a “messy” situation
- ▶ may change with new information
- ▶ do not have an easy or predictable solution
- ▶ do not necessarily result in the “right” answer

(In particular note that you will not be told to make exactly “x trades” since the objective of the game is not to “fill in the boxes” as you do in textbook problems. Moreover each part of the “game” is not listed as being “z points” since many factors affect the point value of each category.)

III. ORGANIZING THE REPORT

A. WARNINGS CONCERNING THE REPORT

THE PURPOSE of this section is to provide in one place important warnings concerning the trading game report. In the past some individuals have not read the instructions carefully enough or have missed important items (or warnings) and therefore have lost points.

1. The **cover sheet is very important**. Make sure you provide the correct information, in the correct format; list the names of each trading category. Use the information on your trades found in the printout of your trades. See the examples given in these instructions.

2. **Include the Think or Swim printout** that lists all of your trades and orders and **put them directly after the cover sheet**. Go to the “account” tab, and then click on the “trade history” tab. At the top change the “today for X days back” to include the term of the course (or pick the range of dates). (You **MUST** be in your margin account that you trade in.) **IF YOU CLICK ON THE “PRINT” ICON AT THE TOP RIGHT THEN YOU CAN PRINT IN REGULAR BLACK AND WHITE**, which will save you LOTS of ink and is much easier to read! **See No. 6 below and identify the trades and orders as discussed there.**

3. Make sure your writeup follows the margin and font size requirements when writing the Report. In order to compare the answers of different people I need the same margins and fonts for everyone.

4. **WRITE THE ANSWERS TO THE QUESTIONS ASKED** in the report. Some individuals quickly read the questions and then write something in the “general ballpark” of the questions. The idea is to answer the specific questions asked. Do not be too lengthy. Many people go into too much detail in the first few questions and too little detail later. Read the question several times to make sure you know what is being asked.

5. Do a spell check and read over your answers at the end. If it is confusing to you then it will be confusing to me. If your answers are not clear I do not have time to decipher them. If your English and/or writing skills are sub-standard (whether English is a second language or whether writing is a tool you have not emphasized) then go to the writing lab for help. At a minimum have someone read your answers and provide constructive criticism (your mother loves you and believes you are perfect ... she probably is not the best critic!). I rewrite papers 15 or 20 times ... writing is an art to be improved.

6. The printout of the trade history

* Print out the “trade history”, “order history”, “current positions”, and “profits and losses” sections. Do NOT include the printout that lists each days account cash, i.e. “account cash”; (cross out these items if they appear on the same page as the other items).

* Put the trades and orders in oldest to newest chronological order; all you have to do is click at the top of that column!! Trades made before the first class day or after the report is due do not count.

* Make sure your printout of the trade history and order history is readable! (easily).

* If you export your transactions into Excel to better add the numbering, naming of instruments, etc. then also print the original TOS trades as is (and include in the report) so I can compare your Excel printout to the original TOS printout.

* **Number the opening trades that count;** put the number at the left of the printed information (next to “default”) in ink; numbering is 1, 2, 3, .. Etc. From the beginning of trading to the end of trading (do not start numbering over again each day!) IF you make more than one trade in the same instrument on the same day then it is not a new trade therefore do NOT number it (NO day trades are allowed). **Only number the “opening trades”**. In addition, next to the buy/sell column number the total of the opening plus closing trades.

* For the trade history: hand write to the right of the trade or next to the symbol the name of the company/FX or futures or contract (do this only for the numbered trades). (Of course, if you export to Excel then you create a separate column rather than hand writing the result.)

* Note which trades are a “sell to open” with an “*” next to the “sell” wording in ink; recall that a “sell to open” is a short sale (it is NOT the closing of a long position).

* When you trade cash FOREX then Think or Swim will create daily RCL and RCT rollover “trades”; these are NOT trades, they are bookkeeping entries, and do NOT count for the game as trades!

* At the right number the **TOTAL number of trades that count** (buys plus sells); do not include day trades or multiple trades of the same instrument on the same day!

* Counting for futures and options combination trades: for futures, buying one expiration month and selling another month on the same day counts as one trade. For options, a combination trade (more than one option month/strike/call vs put) on the same day counts as one trade.

* **Number the order history as follows:** (1) in one column number the “market order” trades; (2) in a second column number the “limit order” trades; (3) in a third column number the “other” trades (trades other than market or limit orders).

B: THE COVER SHEET

THE COVER SHEET FOR THE REPORT IS VERY IMPORTANT: If you put the **correct** information and all the information asked for then you save me time and you get a much higher grade!

ON THE PAGE RIGHT AFTER THE COVER PAGE PUT A PRINTOUT FROM THINK OR SWIM SHOWING THE TRANSACTION HISTORY THAT LISTS ALL OF YOUR TRADES AND ORDERS, PLUS YOUR CURRENT POSITION AND YOUR PROFITS AND LOSSES; AS MENTIONED ABOVE FOR THE TRADE SECTION YOU THEN NEED TO INCLUDE THE NAME OF THE INSTRUMENT/STOCK, NUMBER THE TOTAL AND OPENING TRADES, AND PUT AN ASTERISK NEXT TO THE TRADES THAT ARE SHORT SALES. (Do NOT retype the list of trades ... you MAY put them into a spreadsheet to make it easier to provide the information but if you do this then ALSO include the TOS printout, although the numbering, etc. only needs to be on the spreadsheet. See specifics in Section A above.)

The format for the **cover page** is as follows:

* Your Name; class time; ending portfolio value

* For the following put the information in a column format that you are including (Note: label the rows with these names); (this information must be consistent with your printout): See the hypothetical example (below):

The first date you traded any type of instrument	1/1
The first date you traded NYSE/NASDAQ stocks	1/1
The first date you traded U.S. index ETFs	1/1
The first date you traded ETFs on stocks outside the U.S.	1/1
The first date you traded ETFs/ETNs on non-stocks	1/1
The first date you traded any <u>other</u> type of instrument*	1/1

* (Currency, futures, and options)

The total number of "long to open" trades made	35
The total number of "short to open" trades made	7
The number of total trades made (opening+closing)	52
The number of different days you made trades	16
Current number of positions in the account	10
Number of market orders placed	21
Number of limit orders placed	25
Number of "other" types of orders placed	6

(The last three categories refer to the "type of trades" you used for placing orders resulting in completed transactions.)

	%Trades	No. Total Trades	Date Range
First Q term	28.9%	15	1/1 to 1/12
Second Q	25.0%	13	1/13 to 1/24
Third Q	26.9%	14	1/25 to 2/5
Fourth Q	19.2%	52	2/6 to 2/17

Note in the "% Trades" in the Example above: put both the actual number and the percentage of the total number of trades that occur in each 1/4 of the term (for an eight week course use 12 calendar days for a "quarter", less in the last quarter of if you stop early; for a regular term use 20 calendar days as a "quarter"; thus, if you make 35 out of a total of 100 trades in the first 1/4 of the term then you put 35.0%. Record the percentage to the closest 1/10th of 1%. Start the day count on the first day you are suppose to start, not the first day you actually start.

The following is **VERY IMPORTANT**: make sure you count correctly: Put the total number of "opening" positions for each different TYPE of instrument (put the following types of each of these instruments in this order on the cover sheet in column format with the names of the instruments in the first column, the number of opening trades made, and the first date you traded this type of position). Opening short sales count as opening trades. Closing positions do not count as opening trades!

Type of Instrument	No. Trades (to Open)	First Date Traded
Stocks on the NYSE/Nasdaq	10	1/1
U.S. index ETFs (SPY, etc.)	7	1/1
ETFs stocks outside U.S.	4	1/1
ETFs/ETNs non-stocks	3	1/1
Currencies (cash FX)	4	1/1
Futures	6	1/1
Options	5	1/1
Any other instrument	2	1/1

NOTE #1: the “no. of trades” is **NOT the number of shares/contracts traded**, it is the number of times you made an OPENING trade; also, make sure your numbers correspond to the numbers for trades actually shown in the Think or Swim printout that you include.

NOTE #2: Multiple trades on the same day for the same exact instrument only count once. (If you buy IBM on three different dates then this three different opening trades. BUT trading a lot for ONLY a FEW instruments does NOT generate a high grade.)

ON THE PAGE RIGHT AFTER THE COVER PAGE PUT A PRINTOUT FROM THINK OR SWIM OF ALL OF YOUR TRADES AND ORDERS! (I figure if I say the same thing three times that everyone will actually do it!)

BONUS:

Combination trades: for the next item on the cover sheet list EACH instance that you executed any the following types of combination strategies (give the number of instances your made a combo trade - not the number of contracts - then specify the date you executed each strategy and the specific instruments for the trade); thus, provide as much information as possible to identify the combination trades.

Note: “speculation” is **NOT** a combination trade; neither is a cross trade where the two futures are not directly related to one another, such as gold and stock index futures.

Typically these combination trades will be shown on Think or Swim as combination trades ... that is you traded all of the parts at the same time.

EXAMPLE:

Combination trades

Straddle 3

1/1 Long S&P100 Mar 1000 call and long S&P100 Mar 1000 put (5 contracts)

2/4 Long Intel Apr 20 call and long Intel Apr 20 put (2 contracts)

2/15 Long MSFT May 30 call and long MSFT May 30 put (10 contracts)

C: FORMATTING AND WHAT TO OMIT

FORMATTING AND ORGANIZATION HINTS FOR THE REPORT:

The written part of the report (where you answer the questions) will be **NO LONGER than 3 ½ pages DOUBLE spaced (it must be > 2 ½ pages in length; use 1" margins and use **TIMES ROMAN 13 point font!!**)**; do not use other margins/ characters per inch! If you use WORD then double check your margins (for gutters, and widow/orphan lines, etc.). Do **NOT** put blank lines in the report between paragraphs and do NOT have section titles. Margins refer to 1" from the edge of the paper **to the text** - in other words do not indent beyond the 1" margins. If set up correctly you should have 22 lines per page. (For widow/orphan see Format/parag in Word)

* Do NOT count the cover page.

* **Do a spell check and PROOFREAD the report** - for basic English and to see if you understand it (if you do not understand it then I will not!) - if you need help with English then ask someone! Do NOT use “loosing” for “losing” money!

IV: WRITING THE REPORT

FORMATTING AND ORGANIZATION FOR THE WRITTEN PART OF THE REPORT:
DOUBLE space; see section III C above. Do NOT exceed the page limits!

Answer the following questions concerning the trading game. **Answer each question by number, i.e. 1, 2, etc. and use those numbers in the report.** Answer the question asked (do NOT repeat the question in your report).

Start your answer with the basic idea of the question. For example, if the question asked "Did you use trading rules?" you could answer "The trading rules I used were ..."

Do NOT answer the questions in a general or vague manner, rather discuss what you did/believe. Thus, do not tell me what fundamental analysis does in general, rather tell me IF/WHY you used fundamental analysis.

1. State the maximum amount of total capital invested for all positions (**at any one time**), to the closest \$10,000; state the date this occurs (This does NOT include "cash.") (\$500,000 less cash = total capital). Briefly note if this was a few large purchases or wide diversity of assets.
2. Identify the selection method(s) used to trade (fundamental analysis, technical analysis, guess, computer model). **Why** did you choose this method?
3. Did you use trading rules or trading signals in your trading? Which ones?
4. What was the most amount of money you used (invested) in any one trade?
5. When you had losing trades did you increase the size of your position or decrease its size? What was your reasoning?
6. When you had winning trades did you "cash out" quickly or did you hang on to the trade hoping for a greater gain? What was your reasoning?
7. State to what extent you used special orders: e.g. limit orders. State which types of orders you used and why you used them.
8. How volatile did you think the instruments were that you traded? Which were the most and least volatile? Make comments about how volatility affected your trading.
9. Discuss what you learned about trading and how prices change.
10. What would you do differently with "real money?"