CSI NEWS JOURNAL

Optimal Money Management

It has been said that making money in the markets is more money management than the timing of trades. Since a profitable system (one with a positive mathematical expectation) is a prerequisite to money management, good timing must come first. No money management method can increase wealth in the long run if the odds of producing a profit are not favorable.

There are basically two quantitative categories of money management. One involves the relative level of acceptable risk for a given independent trading opportunity. The other, the subject of this article, involves the level of risk one should accept based on a trader's accumulated wealth.

We decided to present this topic because we have made a programming breakthrough in this area. Using the highly flexible tool known as Monte Carlo Simulation, we can now determine the appropriate level of investment size based on given levels of capital appreciation. The method of Monte Carlo Simulation is used to reach a profit objective in the fewest possible number of trades

for a user's given trading system or record. Our solution involves determining fixed integral increments of contract (or investment) risk as profits build.

A few months ago we began offering the Trading System Performance Evaluator (TSPE) which also relies on the Monte Carlo Simulation method. TSPE determines the capital stake required to achieve a predefined probability of trading success. Our latest breakthrough will let us build on the money management innovations we introduced in TSPE. We're planning a
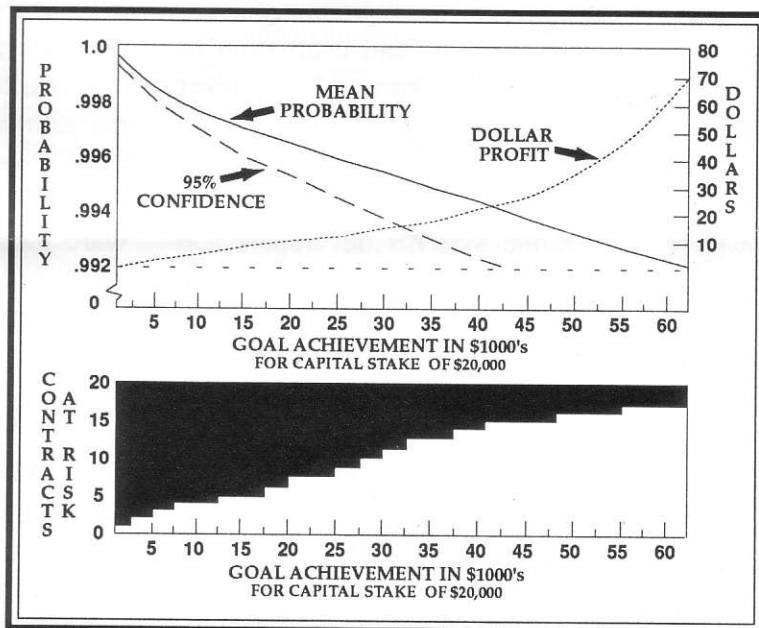
MEAN PROBABILITY / 95% CONFIDENCE / DOLLAR PROFIT — GOAL ACHIEVEMENT IN $1000's FOR CAPITAL STAKE OF $20,000

CONTRACTS AT RISK — GOAL ACHIEVEMENT IN $1000's FOR CAPITAL STAKE OF $20,000

new program, tentatively named the Trader's Money Manager, which will include all TSPE capabilities and the

new money management concepts. It will also provide support for the trader who, in following his own system, wishes to reach a given goal in the least amount of time.

◄ A typical graphic display will resemble the example shown here.

The charts are read as a pair. The lower chart shows the level of risk exposure in contracts as a function of goal achievement. As money is accumulated with a profitable system, the level of risk is moderately increased. One's willingness to accept risk should increase so long as dollar return (additions to capital) is also increasing.

The top chart of the pair shows how dollar return increases with increasing investment risk. It also shows how the probability of winning drops as investment (number of contracts per position) is increased. As expected, the probability of a successful outcome drops as additional risk is added to the equation. It is not possible to have the probability of winning increase if risk goes up.

The most important information here is the top chart's dollar return curve. In effect, the chart tells you that you should be happy to play the game so long as the lower limit probability is under control and the chance of losing money is slight.

The Trader's Money Manager will provide several pairs of charts as a function of initial capital investment. The higher the dollar infusion for the system studied, the higher will be the level of the probability curves. Tolerable levels of risk decrease as probability levels rise.

The Trader's Money Manager will probably include additional information to help with money management decision-making. This product will be important to anyone who is serious about making a success out of trading. We believe that every CTA, pool operator or fund manager who has a profitable approach could benefit from this product. Watch for more news on this tool in coming editions of the CSI News Journal.

An upcoming News Journal will discuss the other category of money management, which involves the relative level of risk one should be willing to assume for each trading opportunity. □

Software Development in the '90s

I have witnessed more than two decades of technical analysis in the Futures market as I managed the compilation of the largest commodity database on earth. In that time I have seen many technological advances, but I am constantly amazed at the inertia in our community. To this day, almost every popular technical analysis software product is based on the theory that price determines price and that each market exists in a vacuum. In the absence of valid tests for auto-correlation, this view differs greatly from what I was taught in my statistics, economics and estimation or forecasting courses. I have never truly understood why people are willing to pay large sums for products that are not rigorously tested.

Some systems developers and commodity market analysts remind me of the fully grown circus elephant whose foot is chained to a flimsy wooden stake. The elephant can easily walk away, but chooses not to challenge the stake. He learned as a 500-pound baby elephant that the stake was immovable, and the elephant never forgets. As an adult, he simply accepts that he can't break loose.

Many software developers I know about in the Futures industry, including some of the most promi-

nent, seem figuratively chained to that flimsy wooden stake. They are unable or unwilling to understand how the market really works. They persist in selling what doesn't work to those who are willing to pay.

Misused moving averages, RSI, stochastics, simple regression, candlestick charts and a preponderance of other price-determines-price tools pretend to predict future market action. Most tool kits fail to go beyond the simple requirements necessary for hindsight analysis. At the risk of changing respected views, I believe that profits cannot consistently be produced without some form of intermarket analysis. In fact, with the zero-sum software tools offered today, I see very few regular winners.

I believe the direction the software industry should take is with intermarket analysis; perhaps the neural network idea where many related markets can feed a model to predict a given dependent variable is a good beginning. Neural networks, however, are not a substitute for sound mathematics, so input data that is reduced or transformed before it is used would be helpful.

I prefer the old time-proven and reliable tools of statistics. Multiple linear regression, autoregressive integrated moving averages, the use

> *"I believe the direction the software industry should take is with intermarket analysis."*

indices, differential filters and money management methods are some areas on which I concentrate. Here are the questions my work is attempting to solve:

■ *Which variables are correlated with the given item to be forecast?*

■ *What is the best timing of market entry and exit points?*

■ *How much capital is required to sustain a viable systematic approach?*

■ *When is it appropriate to increase investment risk?*

These are some of the areas of software development that have been consistently ignored by the trading community for many years. The CSI staff and I are actively working on programs and data that cover all these points.

I believe some members of the industry may join me in these pursuits, but I expect to look back at most analysts as they beat a path around their wooden stakes. □

Best Wishes for Prosperous Trading,

Bob Pellatier

Labor Day Schedule

CSI will be closed for voice communication on Monday, September 2nd for Labor Day. U.S. exchanges will be closed, but data from other exchanges will be available as usual.

Spread Corner
How the TED Spread Fared

In the July News Journal, we introduced a fairly reasonable opportunity involving a spread between Treasury Bills and Eurodollars. We tried to make a case for entering into this spread at perhaps a heavier than normal level of risk. This looked like a promising trade when I wrote the article in early June, just before leaving for vacation. Unfortunately, by the time it was published much of the Long T.Bills/ Short Euro opportunity had dissipated.

The timing of the July TED Spread article was not the best for those who may have wanted to participate, but the analysis is still valid. Here is what happened:

Depending on the position of entry, the TED spread widened by 18 to 24 points ($450 to $600 per contract) after the News Journal was written. The spread later retreated and narrowed substantially into the high 60s as the stock market soared (see chart A above).

Chart B (above) shows details of the spread over an 18-month period. It would have been nice to also show a ten-year chart of the TED spread, but space limitations made this impossible. The reader should review such a long-term chart to understand the longer term trend direction of the relationship. A longer term chart will reveal the historical tendency of the TED spread to make new highs or new lows.

In the TED spread trade at hand, the original long T.Bill position I wrote about in June could withstand a great deal of risk because the buy indicator occurred near the market's ten-year low. By early July the trend had turned

Chart A

Higher Risk
Short Trade

Low Risk
Long Trade

Chart B

T-Bills

Eurodollars

down and a long position was no longer appropriate. In the tradition of trading only with the trend, the buying opportunity had passed. Prudent investors do not buy on the way down. The short opportunity that developed as the spread narrowed did have a confirming trend indicator. However, it deserved far less risk exposure because it was also near the low. We congratulate our readers who may have captured some of the long opportunity and part or all of the short side of the TED spread.

Trading opportunities are defined by trend, and risk is defined by deviations from the norm. Significant directional movement establishes preferred

direction. The number of contracts to risk depends on the current price relationship to the normal range.

An after-the-fact analysis of the spread over the last month tells us that a reversal of money management advice for the short TED trade would have been more profitable. However, no trader should expect to find the most profitable opportunity at all times. The investor who trades with the trend, cuts losses and preserves capital could be a winner in the long run. However, the trader who uses well timed signals supplied by a positive mathematical expectation system has the greatest advantage. Consistent profits are built on prudence and patience, not hindsight.

This postmortem of the TED spread trade may be a lesson you won't want to forget. Users of TraDe$k should save such a detailed trade description in the Journals Module for future reference. Others might simply keep a notebook of tips and reminders learned through market experiences. Such a record backed up by real experiences can foster trading wisdom. □

Overhaul & Redesign of Host Computer Hardware

Starting in September, we will be upgrading and redesigning the entire CSI host computer system. This major renovation will increase redundancy and improve system integration with state-of-the-art technology. These improvements are a reflection of our commitment to provide the best possible service to our users.

We expect service interruptions of several hours during the crucial phases of hardware replacement. Naturally, we'll confine all work to weekend hours. We hope this will minimize inconvenience to our customers. The project should be completed by late September, after which down-time should be virtually eliminated and service should be improved.

Data retrieval on weekdays and evenings should be unaffected by these engineering improvements. We anticipate a minimum of interruption, but to play it safe, we recommend getting your weekend supply of data on Friday night, even if you won't use it until Saturday or Sunday. If you have problems on any weekend during this time, please try again after several hours.

We regret any inconvenience this may cause, but we look forward to serving you through the '90s with the latest in computer hardware. □

Ask Customer Service:

Each month in this column, our service staff addresses a topic of interest to many CSI customers. This month Karen, Kathy, Kim, Rudi, Susan and Tami have presented some common questions about TraDe$k. Their comments may be useful to anyone who is considering the purchase or lease of this program as well as current TraDe$k users.

Q. *Can I track spread trades in TraDe$k?*

A. Yes, there are two methods for tracking spread trades:

1. TraDe$k will track a spread involving any number of legs using standard contract specifications. Simply assign each leg to the same trade number. TraDe$k automatically assigns sequential trade numbers for each trade in an account, but you can over-ride this numbering system. After entering the first leg of a spread, simply de-increment the assigned trade number on each additional leg entered. To view the entire spread, use the {Trade number order} menu selection. Select the desired account from the listing shown and press the <Space bar> to see trades in trade number order. Press the <Space bar> on any trade listing to view all trades and a total for the spread selected.

2. Although method 1 above is the preferred way to track spreads, you can create a contract specification for the spread, assigning a symbol of your choice. Since TraDe$k allows input of negative prices, you can just enter the point difference daily rather than the actual prices for each position. Using this method, you cannot update automatically from CSI's data base.

Q. *I collect a daily portfolio from CSI including every contract and stock I trade. Even so, some of my closing prices are missing when I use TraDe$k's {Daily Update} procedure. Why aren't all my TraDe$k files updated with CSI data?*

A. For futures contracts, TraDe$k looks up closing prices by the CSI Commodity Number; for stocks, TraDe$k uses the CSI stock symbol. If the numbers or symbols in your TraDe$k specifications don't match the CSI numbers or symbols, the prices won't update.

QuickTrieve can print a data listing of all data collected as it distributes your daily updates. Print this list, then go to the Specs module from the TraDe$k main menu. There you can make the necessary changes so that each CSI commodity number and stock symbol matches the corresponding number or symbol on your data listing.

Q. *I trade two brokerage accounts which have different commission charges. Can I calculate these automatically in TraDe$k?*

A. TraDe$k provides unmatched flexibility in automatically calculating commission arrangements for various brokerage accounts. When setting up an account in the Accounts module, there are five entries which control commission calculation:

1. Commission per contract: If you pay the same lump sum round-turn commission for every futures contract (regardless of exchange) this is the only place you have to enter it. Then answer N(o) to the next two entries.

2. Add Round-Turn Commission?: Answering Y(es) to this entry will cause the round-turn commission established for this contract in the Specs module to be used for calculation. An example of this application might be if you pay one lump sum for Chicago markets and another for New York.

3. Add NFA / Exchange Fees?: Answering Y(es) here will cause the lump-sum exchange fee set up in the Specs module to be added to the commission charge. If your commission arrangement includes a lump sum round turn commission plus exchange fees, you could use either 1 or 2 above in addition to this entry.

4. Lump sum Transaction Fee: Some brokers charge a "statement fee" for each trade regardless of the number of contracts traded. This lump sum per trade can be added here.

5. Day trade discount: This entry is used to calculate a lump sum (per contract) discount for day trades. TraDe$k automatically deducts any amount entered here if a trade is opened and closed on the same date. If, for example, you pay $30.00 for overnight trades but only $28.00 for day trades, you would enter $2.00 in this field. Since each of the above categories is additive, you should be able to come up with an automatic commission calculation for each account. If a special condition is encountered, modify the calculated commission at the time the trade is closed. □