

CSI Technical Journal
April 2006
Volume XXIV, Number 4

In This Issue

Holiday Schedule
Minimizing Trading Risk Through Portfolio Management
Sierra Hotel -Trading System Available from CSI
Tech Talk
Compatibility Corner
TradingEducation.Com
Trend Simplicity

Holiday Schedule:

CSI will be closed for voice communication on Friday, April 14th for the Good Friday holiday. Although U.S. exchanges will be closed, the CSI host computer will be accessible as usual. Those markets that remain open will be available for updates at their normal posting times.

Minimizing Trading Risk Through Portfolio Management

CSI customers are a pragmatic group. Your interests are almost unvaryingly directed to the achievement of profits through trading while minimizing appreciable risk. Feedback from subscribers suggests a desire for assistance in keeping portfolios balanced so that risk of coincident losses is minimized. This article is designed to help.

Portfolio selection and construction are important factors in reducing coincident risk, which is risk that compounds with each additional market position. A key principle that must be understood by all traders of multi-position portfolios is that diversification is your friend and correlation can be your enemy.

Many traders acknowledge the benefits of diversification, but most don't recognize how elusive diversification can be. Nuanced relationships between markets can stealthily undermine the best-laid diversification plans. For example, a currency trader may believe he or she is diversified by trading the CME futures in Swiss Franc, the Euro and the Japanese Yen because each of these markets is different. Nothing could be further from the truth because all these foreign currencies have the same common denominator — namely the U.S. Dollar.

That shared relationship (correlation) means that when the U.S. Federal Reserve raises or lowers interest rates, all of these currencies are affected in a similar manner, and in the very same direction. Non-

U.S. currencies improve when the Dollar suffers, and decline when the Dollar is strong. See Figure 1 showing Swiss Franc and Japanese Yen to view this phenomenon.

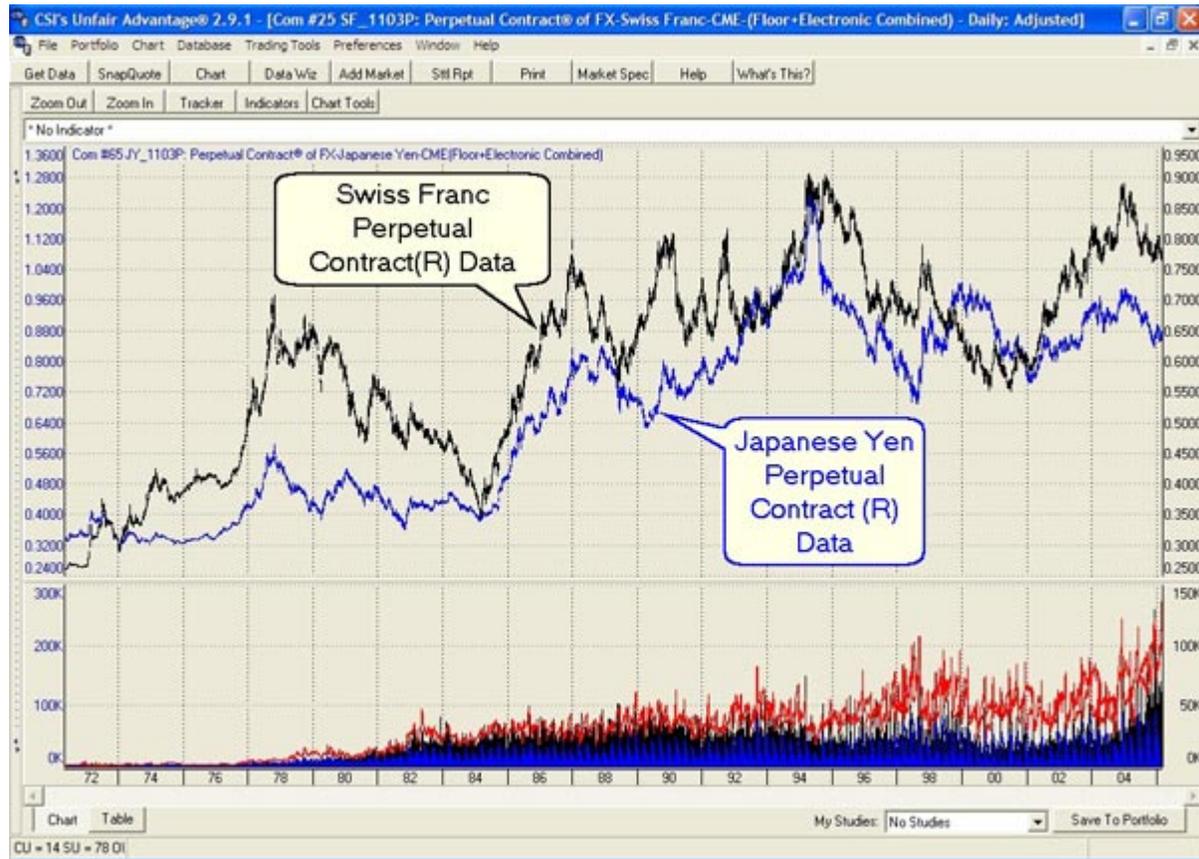


Figure 1

Trading a basket of correlated currencies can result in profits coinciding, which seems good, or serious losses coinciding, which might be devastating. This feast-or-famine scenario is simply not worth the risk. Trading multiple dollar-based currency contracts is not necessarily diversification, and you may not survive long as a trader if you adopt such a strategy.

For another example, consider a trader who takes concurrent positions in grains such as corn, wheat, soybeans and oats. This trader is open for simultaneous profits or losses as weather, rainfall and temperature affect all these markets in a more or less equal manner. You might think a portfolio is diversified if it includes long positions in several products, but this one is not. Good weather and abundant rainfall can result in an expanded harvest for everything that shares a growing season, and push all grain prices lower. You can imagine the heavy losses that might be occurred.

See Figure 2, below, for a look at Wheat and Corn over the past seven years. Similar examples can be seen in almost any group of correlated products. The trick in this business is to diversify your product mix. Don't put all of your correlated products in the same basket if you want to both minimize risk and maximize performance.



Figure 2, Perpetual Contract data series are typically employed for analytical purposes because this CSI-trademarked convention classifies dissimilar markets according to a constant period forward to delivery, and not by specific delivery months.

With the realization that many markets bear considerable correlation and that correlation undermines diversification, how can you find markets to trade? Fortunately, CSI offers “Correlation Studies (a premium service) that can help.

Tomorrow's Newspaper is a summary of market sentiment as presented through indexes, major movers and the like. It also lets you view end-of-day quote summaries for both stocks and futures. Although you can benefit from any of these, the Correlation Studies are undoubtedly one of the most valuable tools for commodity traders. Depending upon your CSI subscription class, viewers of CSI's correlation studies may be subject to a modest monthly fee.

The Correlation Studies show the correlation coefficients for each of the pairs of over 20,000 stock and futures products in the CSI database. These are calculated for periods of 12 to 40 years using daily data. (We are in the process of adding shorter correlation study periods of 1, 2, 4 and 8 years.)

Correlation Study subscribers can find this analysis through "Tomorrow's Newspaper" on CSI's website at www.csidata.com, or by selecting "Correlation Study" from Unfair Advantage's® "Trading Tools" menu. To begin the analysis from the "Market Correlation Report" screen, pick a category (futures, stocks or both) and a time period (12, 20, 30 or 40 years) and then click the corresponding "View Report" link. The next screen offers text boxes for entering the market(s) you wish to analyze.

I ran a sample report (Figure 3) using a 20-year futures analysis on CBT Corn vs. all other commodities, but the investigator has the option of comparing a given commodity with any series in CSI's database of around 1,000 different commodities and many thousands of stocks. Macro-economic series could have been included, as they may be helpful as independent variables, but were excluded here because they are not directly tradable.

Correlation Comparisons with Corn-CBT(Floor Trading Only) (C)		
Click Here for Further Instructions		
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> Com = Commodity or Future Stk = Stock Econ = Macro Economic series </div>		
Correlation starting from 19860303:		
Symbol	Name	Correlation
C2 (Com)	Corn-CBT(Floor+Electronic Combined)	1.0000
XC (Com)	Mini Corn-CBT(MACE)	1.0000
KW (Com)	Wheat-Kansas City-KCBT	0.8018
W2 (Com)	Wheat-CBT(Floor+Electronic Combined)	0.7992
XW (Com)	Mini Wheat-CBT(MACE)	0.7992
W (Com)	Wheat-CBT(Floor Trading Only)	0.7992
MW (Com)	Wheat-Spring-MGE	0.7922
RS (Com)	Rapeseed(Canola)-WCE	0.7546
WW (Com)	Wheat-Feed(Domestic)-WCE	0.7490
S2 (Com)	Soybeans-CBT-W/PrA(Floor+Electronic Combined)	0.7394
S (Com)	Soybeans-CBT(Floor Trading Only)	0.7394
XS (Com)	Mini Soybeans-CBT(MACE)	0.7389
SM2 (Com)	Soybean Meal-CBT-W/PrA(Floor+Electronic Combined)	0.7262
SM (Com)	Soybean Meal-CBT(Floor Trading Only)	0.7262

Figure 3

As you can see in the output report for CBT Corn (Figure 3), the CSI Correlation Studies show correlation values (numbers from +1.00 to -1.00) for the selected market with all requested markets. This lets you quantitatively detect which markets are correlated and which are not. As a rule of thumb, when mixing together products, attempt to avoid markets that are correlated at above +0.3 or below -0.3 with the market(s) you choose to trade. The most desirable portfolio will consist of markets with correlation values near zero.

Applying this to our example for Corn, we should avoid all products that are related to Corn at a correlation level of over +0.3 and below -0.3. The Figure 3 graphic reveals that we should eliminate Electronically Traded Corn, which is identical to this product, as well as the Mini Corn. These first entries would be expected and are not particularly newsworthy. It is the other markets that are of great interest. Also highly correlated to CBT Corn are assorted Wheat markets, Canadian Rapeseed (Canola) and the Soybean complex.

This graphic stops at the high correlation level of .7262, but the actual report includes Oats, Cotton, Sugar, the FOREX Euro, Eurodollar futures, FOREX Swiss Franc and FOREX Japanese yen, with correlation values ranging from .5534 (Oats) to .3098 (Yen). All of these markets are disqualified to coexist

with Corn in a diversified portfolio, as is the U.S. Dollar Index (not shown). The Dollar Index's correlation value of -0.3699 makes it the only market that is significantly negatively correlated with Corn.

You should repeat the evaluation process for each market you plan to trade. Be sure to scroll all the way down to the negative correlation values at the bottom of the list. Separate your holdings into unrelated markets and continue to weed out heavily correlated alternatives. You may well need to choose between favorite markets to settle upon a smaller basket of uncorrelated investments.

Some trading system vendors recommend a basket of markets to follow without addressing the important component of portfolio diversification in determining which to trade. You can maximize your success with such systems through the avoidance of correlated markets. In doing so, you minimize the risk that multiple holdings will move against you in a single "correlated" wave.

Occasionally a correlation study will find strong coincidences that have no basis in logical or causal relationships and report them with high correlation coefficients. These are rare, given the abundant resources used for calculations. If you suspect a coincidence, consider carefully all variables in play and act accordingly. Coincidences may not be likely, but you should be sure they don't mislead you in your trading pursuits!

The ideas discussed represent a practical application of Harry Markowitz's Modern Portfolio Theory (MPT), for which Markowitz won a Nobel Prize in 1952. In that theory, the analyst is advised to match up opportunities for investment according to their longer term expected return and risk. In this application, the focus is on correlated futures products that are subject to related and unrelated levels of association. According to Markowitz, volatility is synonymous to adverse risk. Here, heavy statistical correlation, which is a cause of volatility, can be synonymous to risk. Whether you measure volatility or correlation, both indicators detect and help you avoid situations that can lead to simultaneous losses.

In my analytical work, I make heavy use of CSI's correlation tools to minimize the chance of failure in trading. The conventions discussed here are fully implemented in CSI's forthcoming Intermarket Derivational Market Analysis (IDMA) software. Of course, correlation avoidance is only one tool from among a great many employed. Good things take time, and we want this to be a product all will want to use to make trading pleasurable and to achieve a true *Unfair Advantage*.

This newsletter has emphasized the importance of diversification in the development of a viable trading approach and the benefit of correlation studies as a guide in portfolio selection. You should focus on correlation and other analytical considerations before adopting a complete trading plan. In the months ahead, we hope to cover many other subtle and powerful trading strategies that may improve your trading success.

Bob Pelletier

There are investment strategies that involve trading positively and/or negatively correlated markets, but the practices described here opt for the safety net of full diversification. We'll discuss other alternatives in a future newsletter.

Not a Correlation Study user?

Call CSI at 800.274.4727 or 561-392-8663 to subscribe.

\$20 per month.

In some cases Microsoft's Content Advisor prohibits access to the CSI Correlation Studies. If this happens, you may need to disable the content Advisor to view these studies.

Sierra Hotel -Trading System Available from CSI

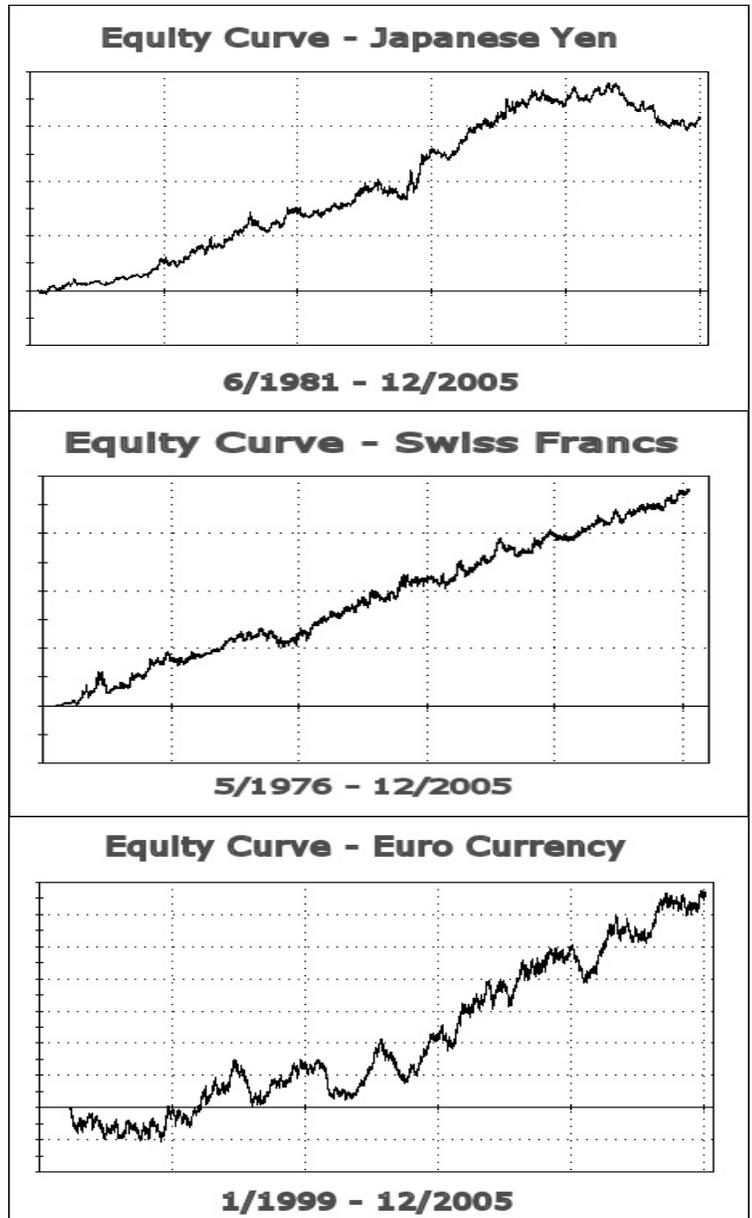
SIERRA HOTEL is an adaptive channel breakout trading system that will very soon be available as part of Unfair Advantage. Using a proprietary algorithm developed by John Ehlers, the lag and width of the channels are dynamically adjusted according to the MESA-measured dominant cycle. MESA is an abbreviation for "Maximum Entropy Spectral Analysis," a remarkable signal processing technique useful for finding cyclical behavior in a time series. By separating the cyclical component from the trending component, the system is better able to separate trending markets from sideways markets. This allows the user to follow the trend earlier and to better avoid whipsaw trades.

The performance results of the trading systems presented to the right are hypothetical or simulated in nature and do not represent actual trading results. No representation is being made that any account will or is likely to achieve profits or losses similar to those shown. From a cursory examination, these three currencies appear to be correlated. See the page 1 newsletter article for information on trading correlated products.

The Developers:

John Ehlers, an electrical engineer, is the main developer of Mesa Software Trading Systems. He received his BSEE and MSEE from the University of Missouri and did his doctoral work at The George Washington University, specializing in Fields & Waves and Information Theory. A true rocket scientist, he retired as an Engineering Fellow with a large aerospace company. John started trading in 1976 and continues as a private trader and strategy developer. He has written extensively on the subject of technical trading and cycle theory, and has spoken internationally on these subjects. John has applied his genius in engineering to develop several trading systems that have achieved #1 rankings in Futures Truth magazine.

Michael Barna, an astronautical engineer, is co-developer of MESA Software Trading Systems. He is also the author of R-MESA, MESAMAX and BIGBLUE. Michael provides more top Futures Truth



ranked trading systems than any other developer in the country. He has been a registered Commodities Trading Advisor since June 1997. Michael has provided custom trading software packages to traders, analysts, investors, money management firms and brokerage houses worldwide. He is an experienced programmer in a variety of languages supporting his research and development in Artificial Intelligence and Genetic Programming applied to the financial markets.

Things to Consider:

The selection of a trading package is an important decision, and one not to be taken lightly. We believe that Sierra Hotel is a well thought-out product that seems quite viable. Its reliance on CSI data for daily updates made it a natural fit to offer with our software. That said, all traders must understand that there is great risk of loss in all futures trading, and past performance is no guarantee of future success.

Hypothetical Performance: Hypothetical performance results have many inherent limitations, some of which are described here. There are frequently sharp differences between hypothetical performance results and the actual results achieved by any trading program or procedure. One reason for this is that hypothetical trading does not involve financial risk. No hypothetical trading record can completely account for the impact of financial risk in actual trading. For example, the ability to withstand losses and adherence to a particular trading program in spite of trading losses are material points which can affect actual trading results. There are numerous other factors related to the markets that cannot be fully considered in the preparation of hypothetical results and that may also adversely affect your trading performance.

Funding: The suggested account equity for trading with the Sierra Hotel system is \$20,000. Although the system can operate on four markets, we are not suggesting that all four, or even any two or three, should be traded together because of correlation issues. We recommend trading one market at a time.

Drawdowns: Look at the hypothetical trading results, above, for an example of how Sierra Hotel has theoretically preformed in the past. You'll note that the Swiss Franc progression curve has a very favorable equity progression with only a few small periods of drawdown. The Euro and the Japanese Yen also look quite good, but there are several periods of substantial drawdown events.

Back-Test For First 30 Days: CSI strongly recommends that customers back test the system before risking capital in the markets. Please make use of your 30-day risk-free period to simulate trading. Log your entry and exit prices and discount for commission and slippage using the Position Manager software provided within Unfair Advantage. This allows you to watch as trading profits and losses are accumulated. Please attempt to experience the ambivalence and indecision inherent in continuing with your trading over an extended period of time. Satisfy yourself that this is a system you would enjoy trading. We don't want you to experience a result which does not suit your temperament and your willingness to accept losses. If you are not satisfied with the signals produced by Sierra Hotel, contact CSI during the initial 30-day period and we will refund the purchase price of the trading software and disable the program on your computer. During that 30-day period, all trades should be done solely on "paper" without market risk or a possibility of loss.

Assessments: Your UA software also includes a Monte Carlo trading analysis study called Trading System Performance Evaluator (TSPE). Please continually feed your trade-by-trade paper-trade experience into UA's TSPE product. TSPE will give you a quantitative assessment concerning your chances of trading success.

CFTC-Required Disclosure:

The CFTC requires the following disclosure statement in reference to hypothetical results: Hypothetical or simulated performance results have certain inherent limitations. Unlike an actual performance record, simulated results do not represent actual trading. Also, since the trades have not actually been executed, the results may have under- or over-compensated for the impact, if any, of certain market factors, such as lack of liquidity. Simulated trading programs in general are also subject to the fact that they are designed with the benefit of hindsight. No representation is being made that any account will or is likely to achieve profits or losses similar to those shown.

Important Resources:

Detailed information about how MESA works:
<http://www.mesasoftware.com/mesa.htm>

Back-tested results for popular markets:
<http://www.mesa-systems.com/sierrahotel.htm>

Trading System Lab (Michael Barna):
<http://TradingSystemLab.com/>

Thirty-day money-back guarantee:

Ehlers and Barna worked together to develop the Sierra Hotel Trading System which CSI is now offering on a 30-day money-back guarantee basis. This offer gives you 30 days to explore the software provided you paper-trade the signals before risking capital in the markets.

Call CSI's Marketing Department at 1-800-274-4727 or 1-561-392-8663 to order or to find out more about this offer.

Sierra Hotel Specifications:

Cost: \$995 (with 30-day money-back guarantee)

Markets traded: Dollar Index, Japanese Yen, Swiss Franc, and Euro currency

Input Data: Daily trading summary for the series being traded.

Output Data: Daily stop order to be placed for the next day's trading session.

Trade Frequency: Approx. 8-16 trades per year, adjustable by parameter.

Tech Talk

Each month in this column the CSI Technical Support staff addresses topics of interest to many CSI subscribers. This month they will discuss FOREX markets and updating the Unfair Advantage calendar.

Q. I'm interested in trading FOREX markets. I would like to view the most popular crossrates: Euro/U.S. Dollar (EUR/USD); U.S. Dollar/Japanese Yen (USD/JPY); British Pound/U.S. Dollar (GBP/USD) and U.S.

Dollar/Swiss Franc (USD/CHF), but I can't find them in Unfair Advantage's Market Specification Factsheets. Does CSI provide daily updates and historical data on these?

A. We offer an unmatched selection of data on currency markets, including futures, cash prices and the interbank FOREX crossrates you desire.

To add FOREX markets to your Unfair Advantage portfolio, select the desired portfolio in the Portfolio Manager panel and then click the [Add File to Portfolio] button above the portfolio list. On the resulting "Selecting Data Series" screen, select "Cash/Forward/Fundamental Series" from the Market Type menu and then click the [Mkts] button next to the "Symbols" box. The Market Specs factsheet will display. Click the "Name" heading at the top of the listing and then scroll through the alphabetically sorted names until you reach the series of markets whose names begin with "FOREX." They'll have names like, FOREX Argentine Pesos and FOREX Australian Dollar. These names were devised so that all the FOREX markets could be conveniently seen together.

The markets you mentioned are listed as follows, but many more pairs are available:

EUR/USD: CSI # 2349, Symbol EU9 (recent price 1.18)
USD/JPY: CSI # 2259, Symbol QE9 (recent price 116.15)
GBP/USD: CSI # 2268, Symbol QF4 (recent price 1.7406)
USD/CHF: CSI # 2266, Symbol CHF (recent price 1.3221)

Check (click) the boxes for each of the FOREX markets you wish to add to your portfolio, then click [OK] to exit Market Specs. If you're creating export files for use with a third-party program, be sure to select the desired format and folder before clicking [OK] to save your changes and exit. Also on the Selecting Data Series screen is the option of inverting your FOREX series by checking a box. Inversion is not usually necessary. The values presented are identical to those quoted by major FOREX dealers, including the online giant GCI Financial (www.gcitrading.com) and major publications such as the Wall Street Journal. However, if the FOREX values aren't what you were expecting, inversion may do the trick. Should a user invert a particular series from say, Dollars per Yen to Yen per Dollars, Unfair Advantage will remember the inversion preference for all further references of the series pair until the user actually chooses to again invert the series back to the previous presentation method.

Q. My Unfair Advantage's Event Calendar is outdated. How can I get current information?

A. Your UA was shipped with fact files and calendars for the then-current calendar year. Although we automatically update some files when changes occur, the calendar is updated on demand through a feature in the Database menu. Here's how:

Click the Database menu and then click "Download Replacement Fact Files." An extensive list of available administrative files displays. Make sure that "Download New Events Calendar" and "Download the Historic Events List" are checked. Feel free to update any additional choices shown there. Click [Download] to proceed.

Compatibility Corner*

Compatibility Corner is an occasional series that introduces our customers to programs that run on quality CSI data and investment-related services that may be of interest. We at CSI are pleased to be among the

preferred data vendors for many third-party investment programs and welcome the opportunity to pass along these notices when space allows.

A New Educational Website For Traders, TradingEducation.com

We have come across a new website that you will want to check out, TradingEducation.com.* This new online portal is dedicated to helping individual traders navigate and master the markets and improve their trading skills through fundamental and technical analysis. All content on the site is free.

The site focuses on current market conditions as well as a variety of educational materials that will give traders of stocks, currencies, futures and options sound background information about trading and important trading concepts. Specifically, TradingEducation.com contains daily market commentary by top trading professionals, an excellent weekly newsletter, eBooks and trading tutorials on a wide range of topics.

TradingEducation.com is sincere in its efforts to help new traders learn the basics of trading and experienced traders learn new ideas and strategies that they can apply in their trading without pushing any particular product or service. I suggest you visit TradingEducation.com when you can.

Trend Simplicity High Performance Trading Systems

Trend Simplicity, Inc. incorporates several factors into their trading systems, with the primary focus on position sizing, then portfolio selection, exits, and last of all, entries. The systems are trend following, trading only in the direction of the trend.

Offering signals for short, medium or long-term trades, depending upon the system you choose, all of the Trend Simplicity software will tell you concisely when to enter a market, where to enter, the trend direction and when to exit.

None of these systems are curve-fit or optimized for any particular market; they use exactly the same strategy for all. Trend Simplicity programs rely on quality end-of-day back-adjusted contracts from CSI. All Trend Simplicity systems have been trading live for five years with never a strategy change. They can be back-tested an additional 20 years. For more information, call 832.767.0996 or visit www.trendsimplicity.com.

*These are not CSI products. CSI does not endorse or stand behind the products of outside firms.

###

See the Bonus Issue (after March 2006) of Technical Analysis of Stocks & Commodities magazine for an interview with Bob Pelletier. It's at Borders and Barnes & Noble now!