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In This Issue

A Special Report
on CSI's website-based Correlation Studies

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New Ways to Explore the World of Investment Opportunities Through Correlation Analysis

CSI's massive database of stocks, futures, funds, and other helpful econometric information is a wonderful repository of market facts just waiting to be tapped by knowledgeable traders. This great resource holds abundant price, volume and open interest information that can be used to improve and verify trading decisions and to exploit market interrelationships.

Intermarket spreads that are supported through CSI's new website correlation studies offer great potential benefits to the trader. Positively correlated markets may deliver profits as they often converge after occasional separations and negatively correlated markets can be traded to profit when they naturally oscillate in consistent opposition. The correlation studies will also help traders find non-correlated markets, which can be grouped together in a very risk-adverse and "Efficient" portfolio. Each opportunity makes a powerful contribution to the trader who should always be in search of ways to balance market forces against the dangers of poor portfolio performance.

This newsletter will explore the many possibilities involving market correlation and show you ways to profit from market movement that deviates from what has been normal in the past.

CSI follows many thousands of stocks, world futures, options and fundamentals. Our ultra clean database of daily data spans many decades. When CSI was compared with all of the most prominent international data firms in a comprehensive data-accuracy test conducted by K-Data on behalf of Futures Magazine, CSI's closest competitor suffered a very distant second place, committing 240% more errors than did CSI — an impressive showing when you consider that the competition included Reuters, Bridge Data, MJK, Omega Research and many others who tout their data integrity.

Here is your chance to benefit from this great repository of virtually flawless market information. ✦

How Correlation Analysis & CSI's Website Studies Can Help You Mine More Than Gold

The great American investor and businessman Warren Buffet has been getting a lot of press since the recent announcement that he's donating a vast fortune to charity. We could all learn

continued on page 2

CSI owns the trademark on "Perpetual Contract," and the use of this mark and concept is not in the public domain. Some major international companies have basically stolen CSI's Perpetual Contract trademark, which is registered with the Federal Trade Commission, and have avoided offering credit for our intellectual property rights.

If you see anyone using our mark without a CSI Trademark reference or credit, please object. We will be forever grateful to you. Unfortunately, the cost of aggressively protecting our proprietary trademark interests has proven to be costly and largely ineffective. Knowledgeable traders and investors know that CSI originated the concept, and we have openly disclosed precisely how the series is formed.

How Correlation Analysis...

continued from page 1

much from his examples of philanthropy and investment expertise. If you are interested in acquiring a fortune of your own, you would do well to note that Warren Buffet did not amass many billions of dollars by believing that a stock's price in the past will suggest its price in the future. In my own experience, I have found that price determines future price about fifty percent of the time, less commission expense. Mr. Buffet is a fundamental value-based investor who didn't follow bar charts to get rich. Like Buffet, I believe that fundamentals play a great role in market behavior. In a breakthrough for market analysis, the CSI staff and I have developed a method of *data mining* that mathematically quantifies important fundamental relationships. Although new and not fully understood, it shows great promise in uncovering trading opportunities that might be parlayed into profits with minimal risk.

Harry Markowitz, PhD, the 1990 Nobel Prize Laureate in Economics, has long used what I consider to be "data mining" in his investment-related work. Back in the 1950s Dr. Markowitz taught investors to be mindful that related markets tend to go down in price together just as easily as they rise in price together. He found that to avoid coincident losses and achieve what he called the "Efficient Frontier," the elements of an investment portfolio must not be statistically correlated. Dr. Markowitz made heavy use of matrices in developing his fabled "Modern Portfolio Theory," much as we have used matrices in developing a new brand of studies that involves applying statistical correlation analysis to market pairs, where related markets work together to log consistent profits in your account.

A mathematical matrix is a premiere tool for displaying volumes of market information (presented as arrays of rows and columns showing related values) for the analyst to contemplate. Markowitz used matrices as guides to assure that the elements within a portfolio of stocks were unrelated (non-correlated). CSI uses them for this purpose also, but we have taken correlation theory a step further by using our matrix to find markets that are heavily correlated in both positive and negative ways. Although our respective matrices focus on different aspects of correlation as it relates to the markets, they are essentially the same. All three approaches demonstrate that an understanding of how associated markets work and move together helps the investor to make improved choices and thus capture reliable investment returns. A major purpose of this report is to help the trader maximize market performance, regardless of which of the above three classes (no correlation, positive correlation and negative correlation) of intermarket relationship is followed.

Achieving Advantages through Both Futures and Stocks

Unlike Buffet and Markowitz, we have included commodity futures in our analysis. One major hurdle in a co-mingling of stocks and futures is that futures are traded in large and inevitably expiring legal "contracts," and stocks are traded in easily managed shares. This is a hurdle that I encountered and conquered in the 1970s while working on technical analysis techniques for trading futures. At that time I formulated a procedure for computing "Perpetual Contract® data" into CSI's market analysis efforts. These constant-period-forward tools have proven to be enduring and valuable for the futures trader. CSI still holds an active trademark on this product and it remains a popular choice among our customers. Perpetual Contract data represents a time-weighted price average of adjacent pairs of forward contracts of the same commodity, such as corn, wheat, heating oil, etc. Each Perpetual Contract data series maintains a focus on future prices that lie a constant number of days forward of the current cash market. Because of the day-by-day continual roll-forward methodology, Perpetual Contract data looks like stock data, making it possible to compare and trade commodities directly with stocks.

The Matrix

We have employed Perpetual Contract data with stock data in a two-dimensional matrix involving tomorrow's material costs, which are reflected in futures prices, and today's security values. This opens up many opportunities in both market segments, even in a mixed portfolio.

The elements of our matrix are the correlation coefficients for associated market pairs formed by analyzing price data for roughly 200 world futures markets and over 15,000 world stocks. These quantities reflect a matrix that is formed using all markets that have traded for at least ten years. Longer-term analyses (up to 40 years) are also supported, but the quantity of relevant time series is gradually reduced as the review period is increased. CSI's database of stocks actually numbers more than 50,000 symbols, but company mergers regularly trim the inventory of stocks with long histories.

Imagine this active matrix of more than 15,000 rows and 15,000 columns covering a large sampling of world stocks, funds and futures held within a database — CSI's database! This incredible merging of market pairs is calculated each and every trading day, and amounts to more than 240 million correlation coefficients, reflecting up to 120 million possible spread trading opportunities.

The correlation values in the matrix range from -1.00 to +1.00. A coefficient of +1.0 for a given market pair (row market vs. column market) suggests that the members of the pair are perfectly correlated with each other. This means that they have historically moved completely in tandem. Because the matrix repeats the same stocks and futures in both the rows and the columns of the matrix grid, the central diagonal shows correlation coefficients of 1.0, reflecting the intersections where each market is compared to itself. Other than these pairs, a perfect correlation would be exceedingly rare. A correlation coefficient of 0.0 would also be extremely uncommon, as it suggests that there is absolutely no causal relationship between the pair. A negative coefficient of -1.00 suggests that a rise in share price for one member of the pair has historically resulted in an equivalent drop in the other member of the pair. Perfect diversions are also unlikely, since all markets exist in the same global economy. All other values suggest either a progressively negative correlation for readings between 0.0 (the average) and minus 1.0, or a progressively positive correlation for readings between 0.0 and plus 1.0.

Figure 1

Correlation Reports

Intermarket Analysis

10 year correlation

— = not in the filter range.
n/a = one of the markets is inactive.

vs.	HG	W	GC	CT	TECUB	CL	KSS
HG	1.000	0.473	0.930	-0.058	-0.758	0.872	0.114
W	0.473	1.000	0.603	0.351	-0.232	0.347	-0.233
GC	0.930	0.603	1.000	-0.027	-0.720	0.881	0.093
CT	-0.058	0.351	-0.027	1.000	0.173	-0.284	-0.719
TECUB	-0.758	-0.232	-0.720	0.173	1.000	-0.808	-0.323
CL	0.872	0.347	0.881	-0.284	-0.808	1.000	0.373
KSS	0.114	-0.233	0.093	-0.719	-0.323	0.373	1.000

A small sample from CSI's massive correlation matrix. The above table was created through the Correlation Reports on CSI's website using a customized list of markets. The correlation coefficients found at the intersections of all rows and columns represent the percent likelihood that each pair of corresponding markets will consistently move in tandem. Among other things, this example shows how High Grade Copper (HG), which is reflected across the top row, is related to the elements in the corresponding columns: Copper with Copper (100%); Wheat with Copper (47.3%); Gold with Copper (93%); Cotton with Copper (-58.9%), etc.

CSI's vast matrix is impossible to view as a whole, so we have developed a website display at www.csidata.com of targeted information based on user queries. This formidable collection of correlation pairs can be boiled down to the user's choice of: a set of correlation values for any given pair over time; a row vector of correlated market elements reported as a sorted list; or as a table showing only selected markets (Figure 1). These outputs reveal substantial hidden opportunities for profit through spread trading that, until recently, have never been made avail-

continued on page 4

continued from page 3

Figure 2

The data at the top of the price-and-signal screen shows correlation levels between the two selected markets over time.This graphic for Kohl's and cotton also includes Position Sizing below the chart. The statistics indicate that one contract of cotton should be traded off with 462 shares of Kohl's stock. In this particular case 462 shares of Kohl's stock (at the last known current price) were equivalent in dollars to one single futures contract in cotton at cotton's last reported price. When making a trade, be sure to balance your risk by keeping the legs of your spread balanced and remember not to vacate one side of your spread without also vacating the other.

able to any trader anywhere. This specialized tool is available only from CSI. With it, the trader can begin immediately to find what are likely to represent profitable, lower-risk investment opportunities. This isn't to say that all risk is removed, as all commodity and stock trades involve risk.

Pairing Negatively Correlated Markets

One exciting prospect for minimizing risk and maximizing profits involves using CSI's website tools to discover and guide you in trading negatively correlated markets. These new tools reveal that strong negative statistical correlation levels expose opposing directional movement of certain pairs of markets, where the two markets in the pair are quite likely to move in opposite directions. This behavior tends to be found when correlation levels go beyond -0.50 to -0.55 and may be most reliable at very strong levels of negative correlation (nearest to -1.00). The ability to find negatively correlated pairs opens up remarkable opportunities for spread trades, in which one market is bought and the opposing market is sold, in anticipation of low-risk profits when one market moves up as the related market moves down. In a perfect negatively correlated scenario, pairs of trades would be followed with coincident sales and purchases, followed by a repeated purchase and sale, etc. as the markets cooperate over time in an oscillating sine-wave pattern.

CSI's extensive intermarket matrix allows you to identify market pairs that are negatively correlated at moderate-to-extreme levels by simply submitting a symbol. Upon receipt of the symbol, the website reports all stocks and all futures markets that have what the user considers to be a tolerable level of correlation (say, beyond a specified tolerance level of 0.50) over a given period into the past. The resulting list of markets might yield one or more candidates for reduced-risk trades.

Understanding Relationships

Lists of negatively correlated markets should be reviewed to determine which, if any, have logical inverse relationships. Such a relationship might be supply-and-demand, or it may be that both markets would naturally respond in different ways to the same economic stimuli. For example, a correlation value that suggests a significant negative relationship between a department store firm, which sells great quantities of cloth merchandise, and cotton futures could be considered logical, and thus a possible spread trade opportunity. Figure 2, showing Kohl's Corp and cotton, highlights this relationship. Kohl's stock (KSS) improves in price when cotton is priced low, and tends to retreat when cotton is relatively expensive. A company's worth, which depends upon specific raw materials, tends to inversely oscillate with the given raw material as the cost of the raw material affects the company's bottom line.

The Correlation Report could turn up negatively correlated pairs for which no logical relationship seems apparent. Cotton and pharmaceutical companies popped up for me. I don't know; maybe the price of those little cotton stoppers affects the drug companies' bottom line, but I doubt it. This may be a logical relationship that an economist might understand, but it is a mystery to me. I would place enigmatic market pairs in the category of "coincidence" and ignore them. Be aware that coincidences can fool the best traders. Know your markets and what makes them move. You may stumble onto something great.

Further Quantifying Relationships

Once a prospective pair of logically linked, negatively correlated markets has been found, proper trade timing and direction are essential to success. You'll need to use additional tools on the CSI website to further screen your trade. Clicking on any correlation value will produce a chart that acts as a guide for market timing and trade direction. A graphic display is produced for each correlated market pair showing a color-coded price-derived line for each market (one is red and the other blue), and a green "signal" line for the pair. The red and blue lines show adjusted pricings for the two markets that reveal their relative price movement on a shared scale. The green "signal" line is based on the statistical difference between the two price lines. See Figure 2.

When the green signal line is very near zero (at the center of the chart) for a given market pair, this means that the two markets are at or near their "normal" price relationship, as determined by up to 50 years of historical data. The more divergent the markets' relationship from the norm, the more extreme will be the signal line values (either positively or negatively). This green line is vastly helpful in finding an appropriate moment or period to execute or exit from a spread trade that will take advantage of a price difference that goes beyond what is normal for the pair. Green signal line values between +2 and +3 or -2 and -3 are probably in the best range for signaling trades. Values beyond +/-3 for the green signal line indicate very unusual circumstances, where abnormal market forces (limit moves, etc.) may make trades more risky.

Looking For Patterns

The chart's green signal line may show an oscillating pattern, but in general (especially for negatively correlated market pairs) it will move about sporadically, always reflecting the price gap between the two markets, relative to their norm. The analyst should study and seek to understand the movement reflected in the green signal line for the various pairs of markets considered.

Implementing a Reduced-Risk Spread

Spread trading between negatively correlated pairs can't be done on a broad scale, as few commodities and/or stocks will consistently diverge in the same economic environment. Finding these rare jewels takes a bit of time and study, but with the help of CSI's website correlation tools, you just might find several striking winners.

To take advantage of the prime opportunity indicated by 1) a moderate-to-strong negative correlation (beyond -0.50), 2) an abnormal (but not extreme) signal line value in the latest data point (between +/-2 and +/-3 sigma), and 3) a signal line pattern that shows a recent reversal, the trader might engage a short position in the higher market, which may have also just peaked (as demonstrated through a high, but retreating value in the higher of the red and blue lines) and a simultaneous long position in the opposing market, which may be reaching a somewhat coincident trough.

The trader would hold the spread position until a sufficient profit has been earned, being sure to exit by the time the two markets' relationship returns to normal. The spread is closed out by simultaneously offsetting (reversing) both positions. This scenario would capitalize on the tendency toward opposite price moves by the negatively correlated pair. Please study the emerging charts and be sure to close out your positions before circumstances begin to repeat what may be an oscillating

continued on page 6

Correlation Study Pricing

Month-by-month: $39/mo.

Discounted Annual Subscription: $295/yr. (prepaid)

Access to the Correlation Report is available only to UA/CSI subscribers who have paid normal license fees for both stocks & commodities and who also pay for this premium service. Those who took our offer to test the Correlation Studies at deeply discounted rates may continue using the service for that price up until your next subscription renewal. At that time, then-current rates will apply. All prices are subject to change without notice, although annual subscriptions lock in the current rate for the subscription term.

The Correlation Reports have a 30-day, money-back guarantee. Call for details.

CSI has offered free, limited trial access to the Correlation Studies on the website at www.csidata.com. All free accesses will be discontinued on September 15, 2006.

Commitments of Traders Data (COT) Endangered!

The CFTC plans to discontinue releasing Commitments of Traders data. If you want to protect your right to receive this crucial information, you must contact the CFTC by Sept. 21, 2006: Please visit the Bullish Review website: http://www.InsiderCapital.com/ to learn more, and use their link to tell the CFTC that you want them to retain the Commitments of Traders report. Also see the August Futures magazine article.

COT data is important to trader interests. CSI provides this information each week, compliments of Steve Briese's Bullish Review. Contact Steve at 888.423.4950 for more information.

How Correlation Analysis...
continued from page 5

movement into a new cycle.

It is important to understand that the profit potential and risk management offered by this type of spread trading is absolutely tied to maintaining positions in both sides of the pair. Never decouple one member of a pair without also exiting from the other.

Translating Perpetual Contract Data into Futures Contracts

If one or both of the legs of your spread trade are futures markets, then you'll need to select the appropriate delivery month(s) to trade. This is because the values shown in the price-and-signal chart are derived from CSI Perpetual Contract data, so we are forcing our analysis around an average period of time forward of the current date. As I said before, this is an advantage that allows comparisons with stocks as easily as with other futures markets. The promise of the correlation approach to trading requires taking positions in futures contracts that lie forward of the current date by at least a couple of months (preferably three) because it takes time to react to market forces. This allows you to avoid becoming subject to product delivery before a given trade reaches a conclusion. Watch the green signal line and be quick to vacate your trade when your objective is reached.

The CSI website provides a table below the price-and-signal chart showing the latest daily update prices for nearby contracts of the commodity. Note the delivery months shown and select the one that is no closer than 60 to 90 days to expiration. This would make it the second (farther distant) of the two contracts used to calculate the 90-day-forward Perpetual Contract data series. If you used a different time frame, then you should choose your contract accordingly. However, I always recommend choosing the farther contract over the nearer, as it is more forgiving and allows the given trading opportunity sufficient time to play itself out. Always set protective stops.

Balancing Dollar Costs

Whatever your investment medium, the ideal spread trade is one in which the value of one leg of the trade is balanced with the value of the other leg. By this I mean that the dollar exposure between the markets should be comparable. If the trader is contemplating a spread involving a commodity against a stock, then the number of stock shares purchased or sold should be determined by the full value of the opposing commodity contract.

The CSI website produces a notation as part of the price-and-signal chart that indicates the price ratio of the two markets and also suggests the number of contracts and/or shares required in each market to produce a balanced spread trade. This effort takes into account the currency of each of the members of the pair. You may need to make some adjustments when trading commodities, as the valuations are based on computed Perpetual Contract data prices. You can calculate the proper values for your investment by multiplying the actual futures contract price times the contract size, and then matching this up with an equivalent quantity of contracts or shares of the stock, based on its current price. Failure to balance both legs of the spread could cause you to lose money even though you were correct in your directional market approach.

As demonstrated in Figure 2, the green signal line for Kohl's and cotton peaked above +2 sigma in early 1996 and troughed very near -2 sigma in the spring of 2002. Both times, a spread trade such as described here could have resulted in handsome profits. This example demonstrates not only the power of the correlation matrix and the signal line, but also the possible infrequency of prime opportunities between a given pair. The user should always investigate before acting upon any trading possibility. CSI is not, by virtue of this report, recommending any given market pair or spread trade. It is totally up to the user to find potential trading situations and to act only on his or her own belief in understanding the intermarket relationship.

A Cautionary Tale

Here's an example of how an investor might discover and attempt to profit from a relationship that turns out to represent a poor opportunity: Through the CSI website Correlation Reports, I found that Tecumseh Products (TECUB), a Canadian manufacturer that deals exclusively in air cooling and heating equipment (which uses copper as a raw material), was among the most negatively correlated markets when compared with High Grade Copper futures (symbol HG). The correlation level for that pair is around minus 0.74 over the last ten years.

This pair possesses both a strong negative correlation and a logical relationship, but the price-and-signal chart (Figure 3) should sound warning bells. The price of copper (red line) has reached extraordinary levels. The signal line value representing the difference between Tecumseh Products Co. and copper is nearing 4 standard deviations of difference, which is unprecedented.

It is easy to say that traders should avoid markets that seem to be on a runaway train, but this scenario might not have been so evident while it was developing. Excessive signal line values (greater than +/-3) can help you spot risky prospects, as can the absence of a recent reversal. Market forces can change quickly, so be sure to watch all open positions very carefully and keep an ear to the news for fundamental factors that might impact your investment. Futures contracts may be subject to daily limit moves, which cannot be exited despite the trader's desire to cut losses and run, so you must be prepared to act quickly to exit both legs of your spread when necessary. This situation highlights the perils of trading negatively correlated markets when rare and explosive price movements occur.

Pairing Positively Correlated Markets:

There is little difference between following negatively correlated markets and positively correlated markets. Using the techniques explained below will likely remove much of the risk from the process and will make you a much happier trader. Simply follow the movement of the green signal line (the statistical difference between the pair) for timing your market entry as conditions materialize.

Markets in similar industries tend to move together, so laggards in a class of markets may become the important opportunities of tomorrow. The CSI matrix tells us that Live Cattle (symbol LC) is positively correlated with Feeder Cattle (FC) at the high level of +0.91. I will use this example to show how one can trade off a pair of positively correlated markets by simultaneously selling one against the purchase of the other. Since these markets are positively correlated in a significant way, the strategy here is to wait for an opportunity when the two markets in the pair are likely to move toward each other.

Again, this is a situation where one would follow the movement of the green line which measures the separation of the markets' prices (blue line minus red line). As you can see in Figure 4, the current signal line value is near 0.0, indicating no suggested trades at this

continued on page 8

This is the price-and-signal chart for Tecumseh Products, a Canadian climate control company, and High Grade Copper, a major raw material for heating and air conditioning equipment. In this case, there is an extreme signal value between the two markets, indicating a risky situation. It may be prudent to avoid betting against such a strong trend!

time. However, if you look back to the end of March, 2006, you'll see a spike in the green signal line to nearly 2.8. At that time, the prices of Feeder Cattle (blue line) and Live Cattle (red line) were widely divergent from their norm, an unusual situation for two very similar products.

Hypothetically speaking, a trader might have made a tidy profit by acting on the spike in the signal line when it reached nearly 2.8 in late March and retreated back in early April. To elaborate, if the trader were to have sold one August contract of the market with the higher relative price (Feeder Cattle - blue line) and simultaneously bought equivalent holdings (two contracts) of the market whose price was relatively lower (in this case, Live Cattle - red line), the net might have been around $150 from the spread trade running from April 3 through May 1. You'll note that both markets rose over the short term, but Live Cattle's greater gain would have more than made up for the small loss in Feeder Cattle. Similar opportunities arose between this pair in 1996 and in 2003, involving opposite positions and potentially greater profits.

A trader could likely repeat a variation of this scenario the next time the green signal line peaks or troughs at a level beyond +/-2. However, taking profits and avoiding losses requires keeping watch and waiting for the moment when the products converge. As with negatively correlated markets, both legs of the spread should be balanced. The trader should do well with this type of relatively low-risk spread opportunity.

In seeking positively correlated pairs for trading, it is helpful to see the index of correlation improve beyond 50:50 (0.50), but I wouldn't necessarily dismiss the positive result if it is quoted at 50%. Since our focus is on a pair of markets, we at least have a chance of breaking even on one of them with a 50% correlation. That said, I prefer to see correlation at some level above 50% for reliable results. The time period used for evaluating a pair's correlation is selected by the user. You will find that, in general, the longer the period of review, the lower would be the correlation coefficient, but this isn't always the case.

Safety in Low Correlation

So far this report has revealed how to find negatively and positively correlated markets and shown you how to confirm good spread possibilities through the use of correlation tables and the signal line. I've included advice about executing balanced spread trades that involve minimal risk. Before launching any trade based on these recommendations, the trader should consider the wisdom offered by Dr. Harry Markowitz in his economic work. The benefits of his ideas are fully attainable through the Correlation Reports found on the CSI website.

One should begin by understanding the revelation that earned Dr. Markowitz his Nobel Prize, which is that a trading portfolio whose elements all have very low correlation values is protected from grave losses because risk is balanced between markets. By "low" he did not mean extreme negative correlation coefficients such as -0.9, but rather low absolute values that are close to zero. According to Markowitz, these are necessary to populate a risk-balanced portfolio.

A portfolio containing only non-correlated markets at levels close to 0.0 would reflect what Dr. Markowitz defined as the "Efficient Frontier." If you were to create a trading portfolio consisting of only non-correlated markets, coincident losses among multiple holdings would be unlikely because you would have assembled a mix of independent and mutually exclusive investment choices. In a Markowitz Efficient Portfolio, correlated stocks are avoided and the portfolio is thus fortified against catastrophic losses should a given market class decline. Greater opportunities for profit are achieved by controlling and balancing the risk through the avoidance of coincident losses.

To find non-correlated markets (a situation where markets move randomly with respect to each other) the trader should access CSI's Correlation Reports and focus on market pairs where the correlation coefficient is close to zero, or minimally correlated between perhaps -0.10 and +0.10. In this range, markets are generally independent of each other. This portfolio selection tool is mute as to trade timing and direction. The trader must use other tools to support ongoing trading efforts.

How does the Efficient Frontier affect the trader using strong correlation and the signal line for trade timing? Not at all if you trade only one market pair at a time. The spread balances itself. However, if you add other markets to your trading portfolio, either as position trades or concurrent spreads, it is likely that some of the non-paired positions will be positively correlated with each other, subjecting you to the market forces Markowitz warned about. Risks will accumulate with each positively correlated position, circumventing the benefits gained when you sought out market pairs for your balanced spread trade.

Any time you plan to add another position to your trading portfolio, be sure to return to the Correlation Reports on CSI's website to be certain that the markets you propose to trade in the same direction are not correlated beyond 10% with any market in which you hold a current position. Failure to exclude additional correlated markets could lead you to suffer coincident losses that may compromise your trading success.

More on Data Mining

Data mining is a valuable pursuit, and one that may be far more profitable than gold mining in days gone by. The Correlation Reports now available as a premium service from CSI help the trader mine the CSI database to capitalize on concepts like those understood by Warren Buffet, Harry Markowitz and others who recognize that prices alone do not tell the whole story. These remarkable new studies reveal the presence of market relationships that may lead to profitable, low-risk trading opportunities. They should be explored to find hidden prospects that arise from unseen market forces.

Figure 4

This chart shows Feeder Cattle and Live Cattle, two highly correlated markets. Spikes in the oscillating green “signal” line indicate possible spread opportunities. Note the “Position Sizing” figures below the chart. This information factors in the prices of the contract pair and the contract dollar value. This example shows that a balanced spread between Feeder Cattle and Live Cattle would involve two Live Cattle contracts and one Feeder Cattle contract. This spread would have equal weight on both sides of the position.

When exploring the matrix of correlation pairs, try to make the connection between each pair of markets and test your understanding of their relationship. You can get more information from Yahoo or perhaps your online broker's website when unknown stocks surface. It might take a good economist to suggest alternative pairs that are very fruitful, but they all may be found somewhere in CSI's database. Abundant opportunities are waiting to be explored with this fresh, new approach to market analysis. Once you become accustomed to the power of Unfair Advantage and the CSI website, you will soon become an expert in data mining, and more than a few nuggets of gold can be your reward. ✦

Happy Trading,

Bob Pelletier

Using CSI's Website Correlation Studies

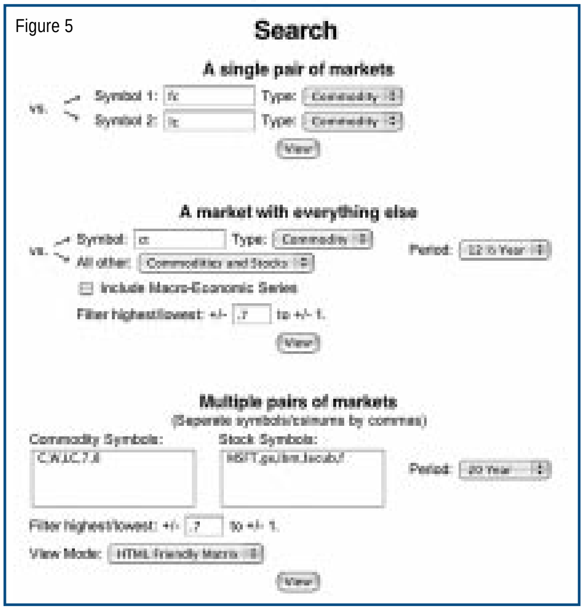

Figure 5

CSI's Correlation Report web page, which manages our extraordinarily valuable matrix information, is accessed either through the Unfair Advantage® software by clicking the "Correlation Reports" button on the toolbar or directly through the CSI website at www.csidata.com. Simply click the "Correlation Reports" link near the top of the CSI main page. After reading the introduction, scroll down to the "Search" panel to start finding reduced-risk, profitable trades!

You'll be offered four ways to search for correlation values (see Figure 5).

The examples provided here show how common-sense relationships derived from correlation values and the CSI website signal line might assist one in finding investment opportunities to take or to leave. The ideas presented here depend upon the strong reliability of statistical probability analysis and we offer no guarantees of success.

Searching a Market with Everything Else

If you don't already have a correlated pair in mind, we recommend starting with the center "Market With Everything Else" choice. It lets you quantify all relationships with the market you propose to trade. Here you can identify either a commodity or stock and compare it with your choice of "Commodities," "Stocks" or "Commodities and Stocks." It also allows you to choose the time period for the analysis.

For example, you might enter "CT" for cotton (be sure "Commodities" shows at right) and then select "Commodities and Stocks" to perform an exhaustive search. The selection screen also allows you to identify a "Filter" value (correlation threshold) that you consider significant to filter out all unwanted results. I suggest 0.60 (be sure to include the decimal point) for starters, which would provide a list of all markets that correlate with cotton at +/-60% or more. Click the arrow next to "10 years" to view a menu of available time frames. When finished selecting, click the "View" button.

It will take the CSI host computer several seconds to compile the results of your request, which will be a list of markets and their correlation coefficients when paired with cotton. A small sample of the negatively correlated results is shown in Figure 6. You'll find positively correlated markets at the top, minimally correlated markets near the center, and negatively correlated markets at the bottom. Scroll through the list to find those that are of interest to you. For this example, we'll focus on negatively correlated markets, which are candidates to trade against each other in low-risk spreads.

The correlation list for Cotton also includes extreme negative values for foreign exchange items and others that may fall into the "coincidence" category, so be very careful when reviewing your market pairs. Try to understand the relationship, and if no sensible reason for the correlation can be found, give that market pair a pass. You shouldn't trade on coincidences, or situations that do not hold significant merit.

If you click on a stock name, you'll see a chart, plus a wealth of information about the issue. A similar data set appears for commodities. The Internet is also quite helpful for finding viable relationships for the pairs proposed here, but it is the responsibility of the trader to identify opportunities. Those markets that appear to be correlated for logical reasons should be retained as candidates for spread trading opportunities.

Each correlation value on the list is a link to a 10-year price-and-signal chart for the respective pair. Click one of these to see if the markets are at an unusual relationship and whether or not a recent peak or trough has occurred. (See Figures 2, 3 & 4.) Below this chart you'll find more charts and numerical information on the signal line value and current pricing.

The spread-trading strategy has already been explained, so please refer to pages 2 - 9 for more information on interpretation. The trades described here would be arranged through sources other than CSI. CSI's objective is to give you the tools to appropriately use correlated products.

Click "Correlation Reports" at the top of the screen to begin another search. You can search for other markets that have negative or positive correlations by individually entering their respective symbols. (The input screen will also accept CSI numbers for the respective markets.) Quite a few significant negative correlations will be revealed for Palladium (PA), Coffee (KC), Gold (GC) and Soybean Oil (BO). The list goes on. If you want to see all correlation values, leave the "Filter" entry blank. Below are instructions for performing additional correlation searches.

Searching a Single Pair of Markets

If you know or suspect that a pair of markets might be highly correlated (either positively or negatively) you can test that pair directly by typing the respective symbols into the first entry on the Search screen, which is the "Single Pair of Markets" choice. Here you can enter either two commodities, two stocks or one of each. The output will be a price-and-signal chart for the two, including information on balancing your spread, plus correlation values for every available time period for the pair.

Searching Multiple Pairs of Markets

The third selection area on the Search screen allows you to identify "Multiple Pairs of Markets" which are entered as separate lists of commodity and/or stock symbols for the time period selected. You can enter CSI numbers, such as 9 for Corn, if you prefer. The individual symbols or numbers must be separated by commas only (with no spaces). The output will be a matrix as shown in Figure 1 on page 3.

For those who plan to trade more than a single pair of markets, this matrix will help you balance your portfolio to avoid coincident losses, as advocated by Dr. Harry Markowitz in his Modern Portfolio Theory.

Searching Highest & Lowest

Another way to search for possible trading pairs is to view the "Highest and Lowest Correlated" markets. These are available for various market groups and time periods at the bottom of the Search screen.

It's that simple! CSI has done the correlation work for you so that you can benefit from this one-of-a-kind resource. We urge our customers to build your own portfolios and paper trade your results until you become confident that we have helped in a very meaningful way. ✦

Figure 6

Cotton #2-NYCE

Symbol: CT

vs.

All other Commodities and Stocks

12 ½ year correlation beginning 19940228

Symbol (Type)	Name	Correlation
CTAS (Stk)	Cintas Cp	-0.794
ZTR (Stk)	Zweig Total Return Fund	-0.796
WMT (Stk)	Wal-Mart Stores Inc	-0.797
GAB (Stk)	Gabelli Equity Trust Inc	-0.798
GE_ (Com)	FOREX South African Rands per 1 U.S. Dollar-#390(57)	-0.800
FITB (Stk)	Fifth Third Bancorp	-0.802
JNJ (Stk)	Johnson & Johnson	-0.809
VCI (Stk)	Valassis Communication Inc	-0.816
THQI (Stk)	THQ Inc	-0.817
USA (Com)	FOREX Indian Rupees per 1 U.S. Dollar-#690(45)	-0.818
KSS (Stk)	Kohls Corp	-0.823
FRE (Stk)	Freddie Mac	-0.826
BAX (Stk)	Baxter Intl	-0.826

This list shows a sampling of stocks and commodities that bear a strong negative correlation with cotton futures (symbol: CT) in a 12.5-year study. By screening out those markets that do not fall within the specified threshold, the CSI website makes it easier to find promising trading opportunities. That is, those where you might trade off cotton with a negatively or positively correlated market.