Pair Trading Educational Course – Part 1

Contrary to popular belief the market has logic to it. The market is efficient most of the time, which is stocks are priced accurately according to all the known and forecast information. The truest logic running through markets is that of relative value, all assets are worth something in relation to something else. Take gold for example; when you buy gold you are going short the dollar too. Stocks, when you buy stocks you are going short cash. Stocks, bonds, commodities & currencies are all inter-related markets with different themes running through them at any given time. The price of oil directly affects the profits of oil companies, hence a correlation between oil futures and oil stocks.

Generally the stock market is a forecasting barometer for how the economy will perform over the next 6-12months. That's why stocks markets always bottom before the economy does and vice versa for topping. Consider the market a big voting machine that represents the collective forecasts of every market participant. Then within the market are different industries, they are priced for their expected growth rates too, then finally within each industry stocks are priced for their individual growth prospects. Generally speaking stocks within the same industry have similar valuations; if one stock is expected to grow a lot more than another stock you will find however it has a higher valuation, a higher P/E. The stock market as a whole is affected by interest rates set by central banks, thats why they respond dramatically to changes in the expected interest rates.

Many stock valuation models incorporate the risk free rate of return on government bonds. If bonds are yielding 10% stocks have to be growing significantly for them to be cheap relative to the risk free rate of return. If interest rates are 1% stocks don't have to be so cheap to seem like a good buy. As you can see the markets are all connected and related to one another in some shape or form.

What about one stock relative to another?

Let's take Coca Cola and Pepsi traded on the NYSE as an example. Both operate in the non-alcoholic beverages market, they share the same demographic, distribute similar products and will be affected by the same macro-economic and macro-industry conditions, therefore both these stocks receive similar valuations and move in a similar fashion. Look at the chart below which shows the stock prices of KO & PEP.

Notice anything here? Yes, they move very closely to one another. There is a scientifically proven relationship between these 2 stocks. There is stock price correlation of 90%. Most of the time these stocks will move in the same fashion, however every now and then they will diverge from one another. This presents a trading opportunity. Because each stock has different institutional shareholders who trade the majority of stock trading volume, they each have their own agenda's, investment mandates and digest and respond to information differently. Every now and then the institutions will offload a lot of shares or acquire a lot of shares in one stock, thus moving the stock. If they don't trade in the other stock it won't move, but that's where we the traders come in.

We arbitrage this opportunity away, by buying/selling the other share to be more in line with the one that has moved, by doing this we provide liquidity to the market, aide in price discovery and aide in pricing assets correctly using the theory of relative value. Therefore there is value to pair trading, we perform a necessary function to the efficiency of the marketplace. We also take an opposing position in the first stock so we remain market and sector neutral, that is general market and sector movements won't affect our overall position. We are only left we stock-specific risk, that is a event happening that only affects one stock, not the market or an industry as a whole. We mitigate the risk of the unknown future stock specific event adversely affecting us by keeping position sizing small to overall account size, don't place more than 50% of your a/c in one stock.

If done correctly pair trading can result in a 70% or higher win rate on your trades. Not every trade is a winner however the more trades you place the higher your odds of coming out of top are. Think of running your trading business like a casino, you make many small bets, win some, lose some, but on average you come out on top, the more trades you make the more likely this will occur, that's why casino's give you free drinks and parking, there not too concerned with your bet sizes, but how many bets you make, the longer you sit there for the more likely they will win. Successful pair trading like any other trading requires strong discipline to cope with the inevitable emotional ups and downs; you have to have the guts to trade consistently every day.

At www.PairTradeAlerts.com we have proprietary custom built software that is housed on our dedicated server directly connected to the NYSE and NASDAQ that search's for these trading opportunities in real time, and then the signals are sent to our twitter channel where you can access our RSS feed or have the signals sent to your mobile phone or email inbox.

That concludes part 1 in the Pairtrade Educational course, we have given you an overview of how markets function, why they function they way they do and where opportunities exist and can be profited from, below in part 2 we go more in depth into pair trading.

Pair Trading Educational Course – Part 2

It's true that the largest hedge fund in the world uses pair trading. Jim Simmons of Renaissance Technologies confessed to Congress In November 2008 he pair trades stocks. Jim actually worked for the CIA back in the 1960's cracking code, he is also a PhD in maths and the 55th richest person in the world as ranked by Forbes. Jim achieved a 2,738% returned in 10 years. He is not alone in using pair trading; in fact long/short trading is one of the most common trading strategies among hedge funds. This is no coincidence; pair trading is a very reliable strategy.

Do hedge funds use candlestick charts, MACD’s, RSI’s? Maybe a few, but not very many. So why do the majority of online retail traders use these lagging indicators that don’t work while the professional trading community use something completely different? The answer is perception. With so many trading books and services all promoting technical analysis its natural for a newcomer to think this must be the way to successfully trade. The reason you don’t see too many books go into detail about profitable pair trading strategies is because any likely author is already using the strategy profitably and doesn’t need to write a book.

The first known practitioner of pair trading was Jesse Livermore back in the late 1800s and early 1900s, he is the character documented in the highly popular book reminiscences of a stock operator. Jesse referred to pair trading as sister stocks, he would find a strong performing stock, buy it and look for a very similar ‘’sister’’ stock to short its weakness. Jesse was very successful at trading and was said to be worth more than 100million, an astronomical figure back in those days.

The first hedge fund was created by Alfred Winslow Jones who used the concept of having a portfolio of longs and shorts to generate alpha, a very new concept at the time. The year was 1949, the hedge fund industry didn’t stand in its own right until the 70s, gained traction throughout the private investment community in the 80s and 90s and at the turn of the latest century into 2007 assets under management in hedge funds exploded north of 1.5trillion making the hedge fund community a true force to be beckoned with.

Why do profit opportunities in pair trading exist?

As long as there is more money sloshing around in mutual funds, pension funds, large institutions, sovereign wealth funds, family offices than there are pair traders the opportunities will always exist. These big funds have investment guidelines and rules, most of them aren’t even allowed to short, that gives us an edge immediately. These players represent the majority of trading volume transacted. There trades move markets. They don’t care whether coke is trading in line with pepsi, if they want a position they will proceed with the order ticket and most of the time not even look at the stock price. Some funds are index tracking, that means when a stock is added or dropped from an index that must replicate that move in their portfolio, traders can profit from these movements too.

So what does a pair trade look like?

Let's take our KO/PEP example from yesterday.

Below is a trade example from our proprietary software

20/07/2009	51.03	56.08	1	2.32	1.56 %
21/07/2009	50.35	56.40	1	0.87	0.59 %
22/07/2009	49.13	55.89	1	-0.25	-0.16 %

Left column is the closing prices of KO, right is PEP

Red means go short, green means go long

Blue means exit

So we bought PEP @ 56.08 and sold for 55.89 for a 0.33% loss

We sold KO @ 51.03 and covered at 49.13 for a 3.86% profit

The trade lasted 3 days

The number 2.32 on the entry date represents how many standard deviations the pair was above its mean, generally you place trades when pairs are more than 2 standard deviations from the mean. The 1.56% represents how much in % terms the pair was above its mean.

As you can see we lost a small amount on the PEP trade however we made 10 times as much on the KO trade, this is how most pair trades play out, and you generally make more on one side than you lose on the other side. This is because the market or sector moves in one direction and generally both stocks go in that same direction, however one side of our pair will outperform the other.

How do we know how many shares to trade?

Ideally, in pair trading you want to remain dollar neutral, which means an equal amount of capital invested in both the long and short side. Using our above example, if you wanted $10,000 exposure on each side, you would take 10,000 and divide by the share price equals your desired position size. So for

PEP (10,000/56.08) =178 shares to buy. KO (10,000/51.03) = 195 shares to short. In this example we would have made $336.68.

Do we use stop losses in pair trading?

We only use time based stop losses, that is, exit after a certain amount of days regardless of profit or loss if an exit signal hasn't been given. We don't use % or $ based stop losses as these prove to harm performance. Also the market guns for stop loss levels and more often than not your stop loss will be hit then the stock price snaps back leaving the trader frustrated. By doing this, we give the stocks room to move and come back to the mean, the more conditions you set on a trade, the more the market has to conform to you instead of you being adaptive.

At www.PairTradeAlerts.com we have custom built software sitting on our dedicated server that search's for these opportunities in real time then automatically sends the entry and exit signals straight to our twitter channel where you can view it and act on immediately.

Pair Trading Educational Course – Part 3

"Quants" is Wall Street's name for market researchers who use quantitative analysis to develop profitable trading strategies. In short, a quant combs through price ratios and mathematical relationships between companies or trading vehicles in order to divine profitable trading opportunities. During the 1980s, a group of quants working for Morgan Stanley struck gold with a strategy called the pairs trade. Institutional investors and proprietary trading desks at major investment banks have been using the technique ever since, and many have made a tidy profit with the strategy.

It is rarely in the best interest of investment bankers and mutual fund managers to share profitable trading strategies with the public, so the pairs trade remained a secret of the pros (and a few deft individuals) until the advent of the Internet. Online trading opened the lid on real-time financial information and gave the novice access to all types of investment strategies. It didn't take long for the pairs trade to attract individual investors and small-time traders looking to hedge their risk exposure to the movements of the broader market.

Pairs trading has the potential to achieve profits through simple and relatively low-risk positions. The pairs trade is market-neutral, meaning the direction of the overall market does not affect its win or loss. It has been proven that long/short hedge funds have delivered superior performance to their peers using other trading strategies. Your not dependant on market direction to make profits using pair trading.

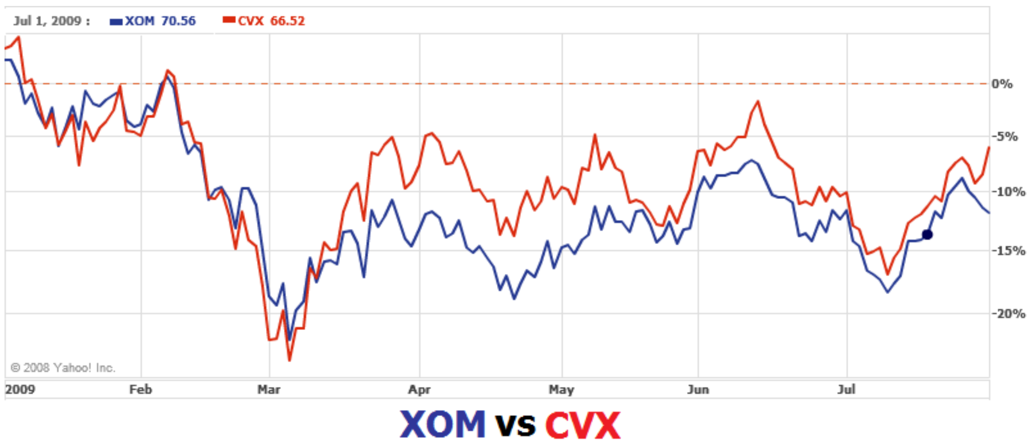
The goal is to match two trading vehicles that are highly correlated, trading one long and the other short when the pair's price ratio diverges "x" number of standard deviations - "x" is optimized using historical data. If the pair reverts to its mean trend, a profit is made on one or both of the positions.

In June of 1998, Yale School of Management released a paper written by Even G. Gatev, William Goetzmann, and K. Geert Rouwenhorst who attempted to prove that pairs trading is profitable. Using data from 1967 to 1997, the trio found that over a six-month trading period, the pairs trade averaged a 12% return unleveraged. To distinguish profitable results from plain luck, their test included conservative estimates of transaction costs and randomly selected pairs. You can find the full 34-page document here.

The broad market is full of ups and downs that force out weak players and confound even the smartest prognosticators. Fortunately, using market-neutral strategies like the pairs trade, investors and traders can find profits in all market conditions. The beauty of the pairs trade is its simplicity. The long/short relationship of two correlated securities acts as a ballast for a portfolio caught in the choppy waters of the overall market.

With the easy access to real time financial market data and vast amount of inexpensive computing power, quantitative trading strategies, especially those that can be implemented using machines with little human interventions have become increasingly popular. Many of these strategies, falling in the “statistical arbitrage” category, continue to earn rather large risk adjusted returns on paper even after they have been well publicized through published articles, and pose serious challenge to the “efficient market hypothesis.” The idea behind pairs trading is to first identify a pair of stocks with similar historical price movement. Then, whenever there is sufficient divergence between the prices in the pair, a long-short position is simultaneously established to bet that the pair's divergence is temporary and that it will converge over time.

Recently, Gatev, Goetzmann and Rouwenhorst (2006, hereafter GGR) showed that a pairs trading strategy generates a monthly Sharpe ratio four to six times that of market returns between 1962 and 2002. Despite the large abnormal (risk-adjusted) returns associated with pairs trading, we know little about what makes pairs trading profitable. We find that type of the news released around the divergence date plays a critical role in explaining cross-sectional variations in the profits across different pairs trading positions. Recent literature, typified by Kovajecz and Odders-White (2004) interprets the apparently high return to such strategies as being reward to investment in market making activities, i.e., trading activities that provide immediacy and price discovery in the underlying securities.



Can you see the opportunities?

Many online traders spend a lot of their time looking for a method to trade, or are constantly changing their methods or play around with messy spreadsheets. Using a trading system reduces the emotional side of trading, you are told exactly when to buy and sell and can spend your time focusing on good execution and risk management. Here at www.PairTradeAlerts.com we have spent a great amount of time developing a successful trading strategy.

We are experienced traders and computer programmers that work full time on delivering products and services to online traders. Think of us as your partner in your long term wealth creation strategy. We are not a fly by night company, we have been around for a long time and will continue to provide the best service to our clients well into the future. You can receive entry and exit signals for pair trading opportunities by subscribing at our website and you can have the signals delivered in just about any mode of communication you can think of. Whether your at work, on the golf course or on vacation you can receive and act on our signals. We look forward to a long lasting and valuable relationship with you.

Thank you for reading and have a great day!

The Team at www.PairTradeAlerts.com

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REAL TIME STOCK TRADING SIGNALS