# Layman's Guide to Pair trading





www.pairtradefinder.com

#### **Table of Contents**

- 1.0 Introduction to Pair Trading
- 2.0 History and growth of Pair Trading
- 3.0 The basics of Pair Trading
- 4.0 The Application of Pair Trading
- 5.0 12 Different Hints, tips & tricks to enhance your Pair Trading
- 6.0 The future of Pair Trading
- 7.0 Useful Links

#### **DISCLAIMER**

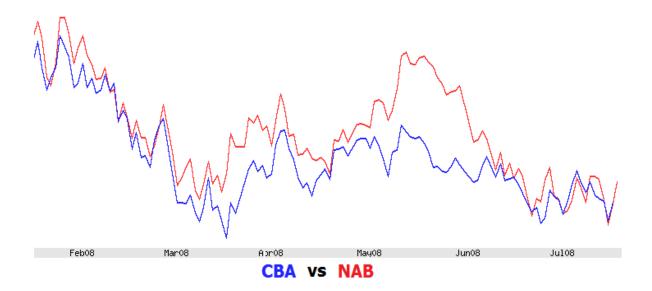
TRADING INVOLVES SUBSTANTIAL RISK. USING LEVERAGE WILL MAGIFY YOUR LOSS'S ASWELL GAINS. THE INFORMATION PRESENTED HEREIN DOES NOT TAKE INTO ACCOUNT YOUR PERSONAL FINANCIAL SITUATION AND THEREFORE IS NOT INVESTMENT ADVICE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE PERFORMANCE. THIS INFORMATION IS INTENTED TO BE USED AS AN EDUCATIONAL GUIDE TO TRADING ONLY. TRADING SOFTWARE PTY LTD OR ANY OF IT'S DIRECTORS, AGENTS, OR ANY OTHER KNOWN AFFIILATES WILL NOT LIABLE IN ANY SHAPE OR FORM FROM YOUR INVESTMENT DECTIONS ARISING FROM THIS MATERIAL. BY READING THIS DOCUMENT YOU UNDERSTAND AND AGREE TO ALL THE TERMS AND CONDITIONS PRESENTED ABOVE.

# 1.0 Introduction to Pair Trading

Pair Trading, also referred to as Statistical Arbitrage, Relative Value Arbitrage, and Long & Short Equity has been used successfully among market professionals for 59+ years now. It is widely used among hedge funds, institutions and other market participants. The main attraction of pair trading is its controlled risk, low correlation to the market averages and ability to generate significant & consistent returns.

Have you ever bought a stock and it's gone down straight away? Chances are the whole market has gone down as well. That's because all stocks have a correlation to the general market to a certain degree. Wouldn't it be great if you could profit from stocks regardless of what direction the market goes, up, down, sideways, high volatility, low volatility, choppiness, spikes etc.....

A pair trader will monitor two similar stocks and aim to buy the oversold issue and simultaneously sell the overbought issue, exiting once the relationship returns to its norm. The professional pair trader will match stocks based on their statistical correlation, market capitalisation, valuation, price similarity and underlying business similarity among other characteristics.



# 2.0 History and Growth of Pair Trading

Melbourne born, Alfred Winslow Jones is credited with creating the first hedge fund in 1949. This fund also happened to be the first known user of Pair trading. AW Jones used leverage to go both long & short stocks in equal amounts to significantly reduce market & sector risk also delivering consistent profits. This style proved highly successful and Jones significantly outperformed the market averages and other mutual funds.

The style became widely used among hedge funds & investment banks in the late 1980's. Gerald Bamberger from Morgan Stanley popularised the concept & implemented the application through quantitative modelling & rules-based computer execution.

Many large Hedge Funds from around the world continue to use Pair Trading as a means to deliver low risk, high reward returns to their investors and partners. Recent studies have shown this style to deliver superior returns with lower risk than any other style of trading, especially in volatile, bear markets.

This strategy once reserved to this rich & privileged, has in recent years become available to the everyday online trader through significant developments in technology & markets. Online traders can today too, enjoy the significant benefits that come from Pair Trading.



Alfred Winslow Jones

# 3.0 The Basics of Pair Trading

Contrary to popular belief, a form of logic does run through the world's stock markets. Most of the time, stocks are priced efficiently, that is all information is discounted in a logical, relative manner. However, every now and then the market does something stupid and creates inefficiency. Stocks don't buy and sell themselves, those orders are entered by people, people are driven by emotions, emotions cause irrational decisions and this emotional decision making characteristic is multiplied many times when it comes to a crowd of people.

Stocks trade like a several schools of fish, all schools roughly going in the same direction. Imagine each school of fish represents a certain sector within the stock market, for example let's take the bank shares, all things being equal (news not affecting particular stocks), bank shares trade in a similar manner as the macro-economic factors affecting those companies are almost exactly the same.

If, out of no good reason, two of those shares diverge away from each other, there is an inefficiency created & an opportunity to profit. The main benefit of pair trading is that your exposure to market & sector risk is significantly reduced by holding both long & short positions in equal amounts. The relationship between two correlated stocks is much more predictable & reliable than the outright prediction of the direction of a particular stock.



# 4.0 The Application of Pair Trading

Professional pair traders know the key to successful trading is having the right platform for analysing potential trades. Many novice traders will attempt to use free websites, excel spreadsheets & other scapegoat methods in attempting to pair trade whilst a serious trader isn't afraid to pay for an analytical program that will put him in the winning trades and ahead of the game; this is what separates the boys from the men in the highly competitive trading world.

When choosing a pair trading program look for one that can scan for correlated pairs, generate buy and sell signals, show graphical visualisations of the relationship between stocks and of course the program should have an integrated portfolio management system.

Large investment banks, institutions & hedge funds spend millions of dollars each year on developing pair trading programs and the application of them, they know it's crucial to not only have the right information, but be able to view & analyse it in a timely manner. With the significant advances and development in technologies in recent years this has become possible for the average online trader to view & analyse the same information.

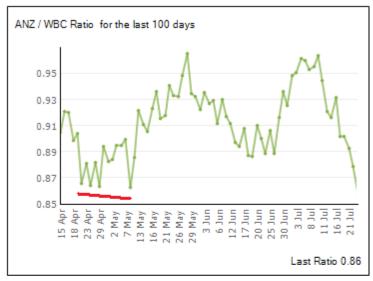


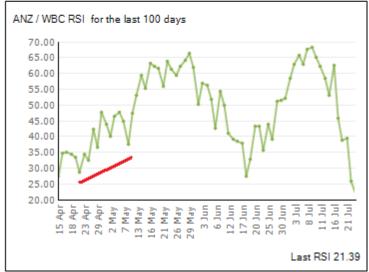
# 5.0 12 Different Hints, Tips & Tricks to enhance your Pair Trading

There are many different ways to enhance your pair trading, there is no definitive method on pair trading, it's up to the trader to customize his own style. The signals generated in Pairtrade Finder are a start and shouldn't be taken into consideration on their own, rather in combination with other analysis to generate the best potential trade candidates. Here are a few idea's to enhance your pair trading, you don't necessarily need to follow all these rules to be successful but they will help as you progress.

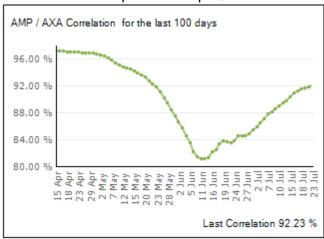
- 1) First and foremost, determine why the signals were generated, was there a news release for one of the stocks in the pair, earnings, dividends or other announcements that you would expect to have an impact on the stock prices. Ideally, no news at all has been released recently or expected to be released soon when a signal has been generated, in other words there is no logical reason why the two correlated stocks have diverged from each other.
- 2) Analyse your ratio chart; is the ratio bouncing off recent lows or touching recent highs, ideally you want the ratio chart to look oversold or overbought. A ratio chart in a trading range is a good pair to trade.
- 3) Analyse your RSI chart; is the RSI at overbought levels above 70 or is it at oversold levels below 30, is the RSI near recent highs or lows. A RSI divergence is a powerful signal the trend of the ratio is about to change.

A RSI divergence occurs when the ratio makes a 'W' formation on the chart, but the RSI doesn't make a matching 'W' formation, rather the right hand low is substantially higher than the left hand low. See the charts below for a visual example of a RSI divergence. Here we would have been bullish on the ratio, thus wanting to go long ANZ whilst simultaneously shorting WBC. This trade would have worked well as you see the ratio shooting towards the sky after confirmation of a RSI divergence around the  $7_{\text{th}}$  of May.





4) Analyse your correlation chart, ideally you want a high correlation (above 70%) and for the correlation reading to have never gone below 60% in the last 100days, the higher the better. See the chart below for a good correlation of a pair example;



- 5) Consult your volatility chart, you have to master the trick of matching your shares purchased relative to the inherent volatility of a particular pair, the higher the volatility the less shares you need to purchase and vice versa. The average volatility for well correlated pair is around 1.5%, with readings below 1% indicating low volatility and readings above 2% indicating high volatility.
- 6) Choose your pairs carefully; your results are largely dependent on the pairs you trade. The best qualified stocks for pairs are large caps that have high daily trade volumes. Smaller cap stocks, although can generate significant profits, have a much higher stock-specific risk, that is, negative news affecting one of your stocks that you have a position in, it's not uncommon for small cap stocks to move 20, 30% or more daily. Pairs that have performed well in the past are the most reliable indicator you have for future performance; however be careful not to treat this as the Holy Grail indicator though. Don't be afraid to add, delete or change pairs in your watch list as time goes by, as all stocks & markets are subject to change.

The ideal pair is one where the 2 stocks do business in the same industry & markets, have roughly the same market capitalisation, the same valuation (p/e), roughly the same stock price, & same average daily volume. The more similar the stocks in a pair, the more reliable the signals become. Of course there are very few pairs where both stocks are exactly the same, so you have to compromise, however the closer you get to the above the better.

- 7) Chose your online broker carefully. The platform you trade from has a massive impact on your trading, not only the commissions and fees you pay, but the actual platform for executing trades. You want a platform that has dynamic, streaming, real-time prices that you can easily enter trades on. You should have price in mind when selecting a broker, as your biggest cost of trading is commissions, also you interest costs for the leverage you use should be highly competitive as well.
- 8) Scale into and out of your trades. This isn't recommended for everyone, only advanced pair traders with over 100+ trades experience & those with the confidence to withstand volatility & discipline to stick to a plan. You can use your ratio chart to lower the cost average of your pair and scale out as you see fit. This method is popular among professional pair traders .

as this method requires good patience, and that gives those traders an edge over the rest. You can use the program to enter the long position first and scale into their short position if you feel the market is rising and vice versa. You can initiate one side of the pair and only enter the opposite side if your initial position moves against you (also referred to as leaning on your other side); this way you can use a program signal in unison with your market, sector and stock analysis. Scaling in and out of trades requires more capital, attention and experience than normal pair trading.

- 9) Keep a diversified portfolio of pair trades. You should limit your exposure to any given stock & sector within your portfolio, for e.g. never have more than 25% of your account exposed to one stock, even less if you can. Trade pairs from a variety of sectors & markets if possible. Successful pair trading is all about making heaps of small trades, the smaller your trades are the less risk you are exposed too and with many trades the more likely you will profit over the shorter term and the more consistent your results will be. The more risk capital you have to trade with, the more robust your trading will become.
- 10) Get to know your stocks intimately. For example if you just focused on two stocks every day, following their prices, news released and analyst expectations after awhile you would become an expert on them and know intuitively when one was underpriced relative to another and vice versa. Obviously following one pair won't generate enough signals to effectively trade, so you have to expand your reach. To start with focus on one sector and a handful of stocks, master them and then move on and add new sector's and stocks to your radar.
- 11] Analyse the fundamentals of your stocks. Ideally you want to be long undervalued shares and short overvalued shares. A good tool for determining value is PEG, which is p/e divided by expected eps growth, you want to be long the stock with the lower peg and short the stock with the higher peg. P/B is another tool used to measure valuation, price divided by book value. Don't view these ratios holistically; rather view them relative to other stocks, that's how you measure value.

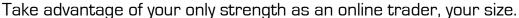
12] Stay disciplined in your trading. We hear it often as traders and it sounds so simple, yet it's the number one reason why traders fail. You emotions can't mimic your profit and loss; otherwise you will make emotionally based decisions which are never profitable. Become like a robot and consistently apply the same method and you will significantly increase your chances of success.

As you've seen above there are many ways to enhance your pair trading. Treat it like a game, where you learn the ropes first, start small, learn as much as possible, practice, practice & practice and you will master your game. If you're new to pair trading we strongly recommend you paper trade as much as needed until you feel 100% comfortable with this style. Success doesn't come overnight, however it comes to those who plan, persist and are patient. Like anything else you get back what you put in.

# 6.0 The Future of Pair Trading

Pair trading is a relatively young style of trading only becoming popular among institutions in the late 80's and available to online traders at the turn of this century. With foreign governments opening up and cross-border hurdles breaking down, the future ground for pair trading looks very fertile and we can scan 1000's of correlated stocks from around the globe that trade in high volumes. Given the rapid developments in markets, technologies and globalisation, pair trading has quite a way to go yet.

You, the online trader have one massive advantage over the big institutions, investment banks and hedge funds; your size. Because you're smaller, you are more nimble and can achieve a higher growth rate more easily. You don't have to buy & sell millions of shares, eroding you entry & exit prices, limiting yourself to only the highest traded stocks and have to spend millions on executing trades.





#### 7.0 Useful Links

#### Australian Stocks:

<u>www.asx.com.au/asx/statistics/announcementSearch.do</u> (great for company news)

www.news.com.au/business/markets/ (great for analysing fundamentals)

#### **USA Stocks**:

www.yahoo.com/finance (great for company news)
http://moneycentral.msn.com/investor/research/welcome.asp (great for analysing fundamentals)



**WWW.PAIRTRADEFINDER.COM**