



Pairs Trading,

A Market Neutral Investment Strategy





What is market neutral?

Market neutral is an investment strategy to take out volatility from the market. It brings the comfort of making profit from virtually any market condition: bull, bear or sideways. This investment strategy is commonly known as pairs trade or statistical arbitrage. Investment decision is not governed by price of a stock but by factor price (price co-relation) of two or more stocks.

To make the strategy simple: - find two stocks whose prices have moved together historically. When the spread between them widens, short the winner and buy the loser. If history repeats itself, prices will converge and the arbitrageur will profit. It is hard to believe that such a simple strategy, based solely on past price dynamics and simple contrarian principles, could possibly make money. In practice, strategy is not all that simple as it sounds.



The Elements of Pairs Trading Overview

Pairs Trading is the synthesis of 3 basic elements:

The Market Neutral Element

Market neutrality is central to pairs trading because it drives how trades are built and analyzed, it defines relative risk metrics & it serves as the basis for the overall trading strategy.

The Statistical Arbitrage Element

Statistical Arbitrage is central to pairs trading because it provides the framework for the success or failure of a trade, and, therefore is the basis of absolute risk management.

The Technical Analysis Element

Technical analysis is central to pairs trading because it provides many of the tools by which a trader may make decisions about both the quality and the timing of any potential trade.



The Market Neutral Element

Sector or Industry Neutrality

A pairs trade that crosses sector or industry lines may be statistically attractive, but each leg of the trade is acted on by different market forces that may affect the ultimate success of the trade

Market Capitalization Neutrality

Pairing stocks with significantly different market caps may leave a trade vulnerable to regular market rotations

Beta Neutrality

Pairing stocks with significantly different betas builds a market direction bet into a trade where it may not be wanted. While total beta neutrality is very difficult, a pairs trader must always be aware of the betas of the two stocks he or she is pairing.



The Arbitrage Element

Mean Reversion

Market neutrality eliminates most of the affects of movements in the general market.

Correlation analysis compares the strength of the relationship between the long portfolio and the short portfolio.

In a properly constructed portfolio, mean reversion occurs when the long and short portfolio return to their historically average relationship.

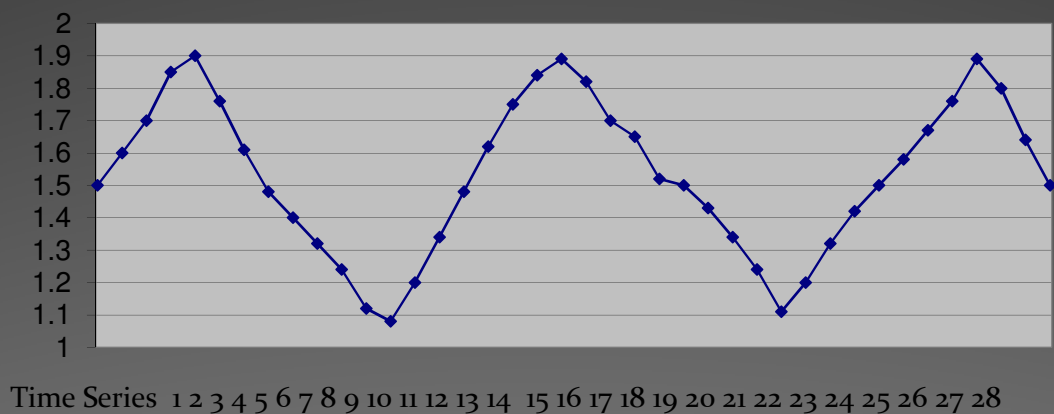
Mean reversion is an example of relative-value arbitrage which is based on an implied or assumed convergence of a pair's price ratio back to its historical average.



The Technical Analysis Element Non – Perfect Pairs

In most cases, pairs are not as “perfectly” range bound as in the below example.

Price Ratio of ABC / XYZ



Technical indicators, when applied to pair, give a trader the tools needed to gage proper entry and exit points; they dictate the timing of pairs trades.



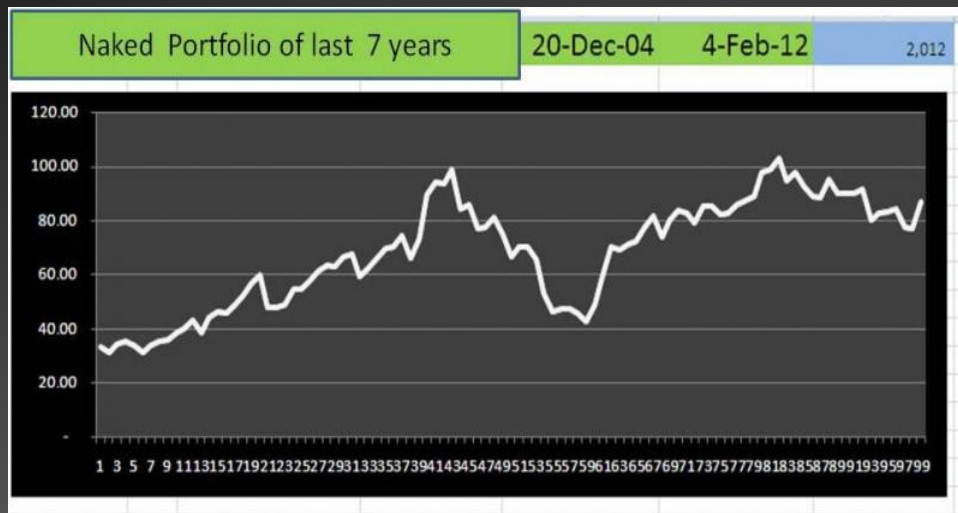
How does this strategy work in Indian Stock Market?

We will examine the strategy under broad five categories:

- Buying habitual outperformer and short-selling index.
- Going long on habitual outperformer and short on habitual under performer. Simply speaking differentiating studs from donkeys.
- Buying inexpensive stocks and short-selling expensive peer group stocks.
- Buying inexpensive stocks and short-selling index.
- Going long on bad but-not-all-that-bad and short on good but-not-all-that-good.



Long : Habitual out-performer
Short : Market index



Let us analyze two investment scenarios of a portfolio of 20 blue-chip stocks for last 7 years. We named our portfolio Nifty-Major consisting of 20 stocks from Nifty50

Scenario-1 : Portfolio without any hedge strategy

Scenario -II : Portfolio hedged with index Nifty50

Twenty Blue-chip companies :

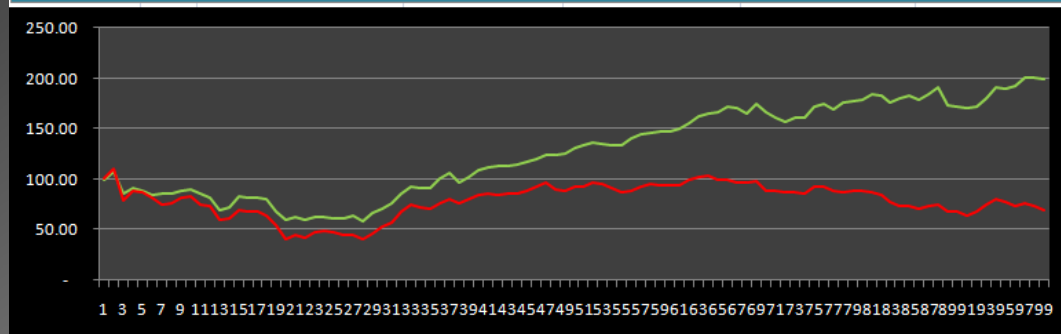
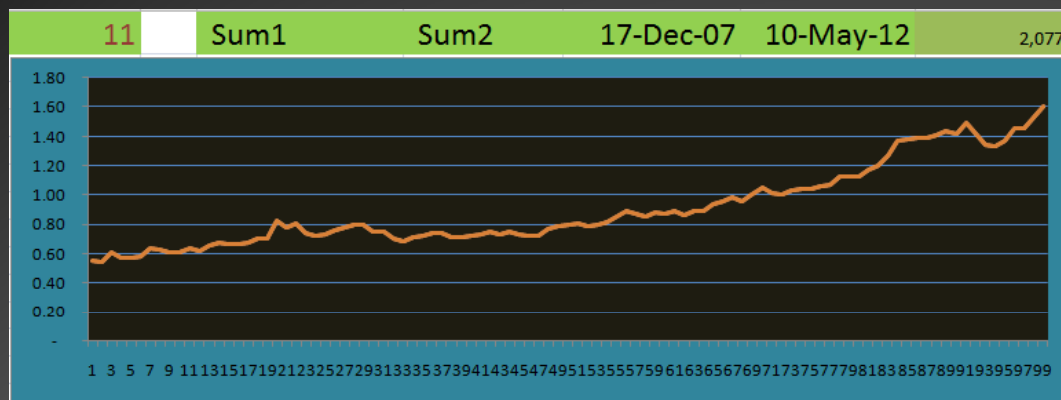
ACC ITC COLPAL HDFC HDFCBANK SBIN
AXISBANK BHEL LT HEROMOTOCO
AMBUJACEM ASIANPAINT BHARTIARTL DRRE
DDY INFY TCS LUPIN RELIANCE TATASTEE
L M&M



Long : Habitual outperformer
 Short : Habitual under performer.

Simply speaking differentiating studs from donkeys.

Studs vs Mules



Please note that we create our proprietary indices. This graph is an outcome of factoring two internally created proprietary indices. Green line is index of studs, red line is index of mules and amber line is a factor of green and red

Know your studs and mules

One way to beat the market is to simply differentiate between studs and mules. It is difficult to know which way market is heading but definitely it is easy to know who are the star performers and who are the laggards. Under market neutral strategy, you simply buy studs and short sell mules.

I differentiated 10 studs from mules over last four years and got following results.

Even if market has fallen over by 20% in last four years, our stud vs mule strategy has produced 150% return!

Chart 1 shows price co-relation line which perpetually is on its northward journey

Chart 2 shows my studs (green line) and mules (red line.) My studs are far ahead of mules.

My Studs :

ASIANPAINT ITC ACC COLGATE TITAN
 LUPIN SIEMENS TCS HDFC HEROMOTOR

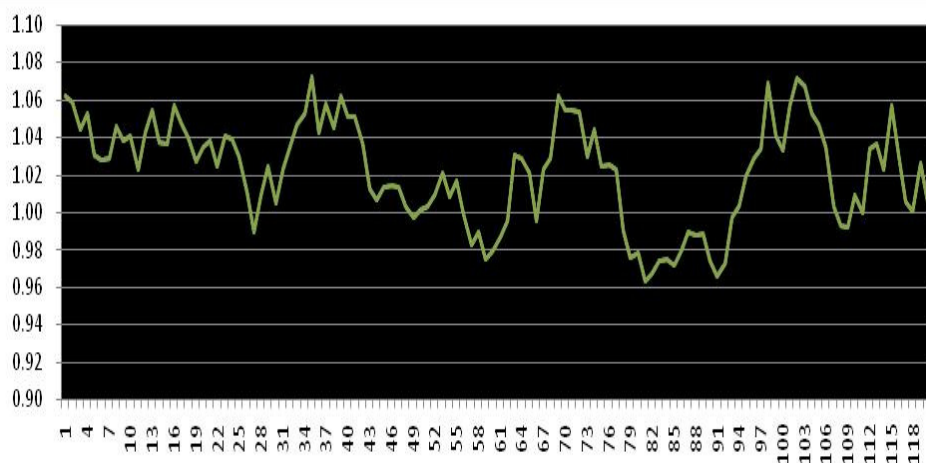
Market Mules :

WIPRO CONCOR ZEE TATASTEEL IOC
 ICICIBANK NTPC SAIL UNIONBANK MRPL



Long : Inexpensive peer group stocks
Short : Expensive peer group stocks

Group A Hedged with Group B
Period : 13-Jul-09 to 8-Jun-12



Please note that we create our proprietary indices. This graph is an outcome of factoring two internally created proprietary indices.

For a positional trader this strategy is a wonder drug. It works under any market conditions. – rising, falling or sideways.

Lets us examine a 5x5 basket strategy of equally good peer group stocks and hedge them .

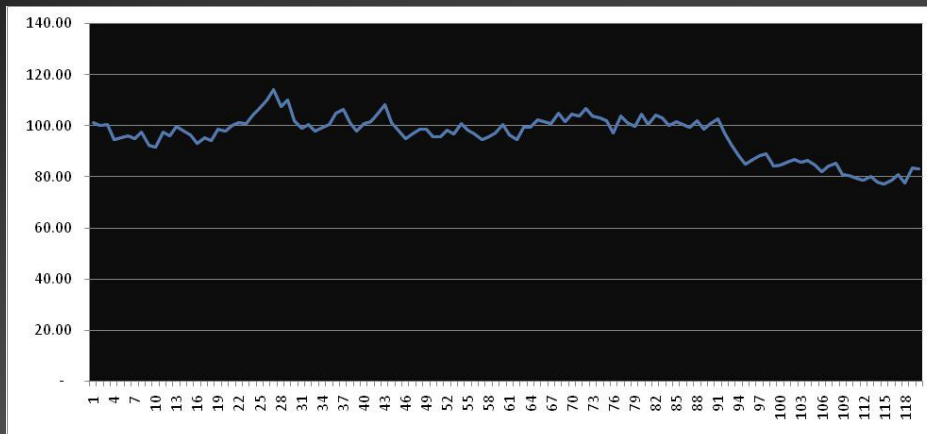
Group A : HDFC RELIANCE ITC SBIN
INFY

Group B: L&T ONGC HDFCBANK
ICICIBANK TCS



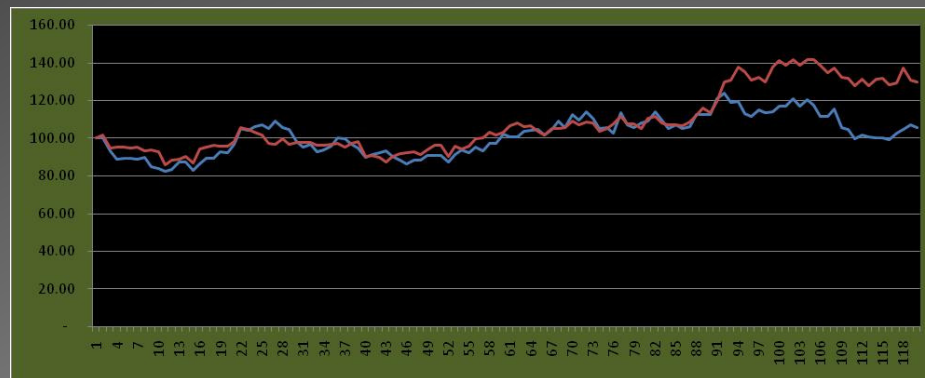
Long : Transitory Underperformer Short : Transitory Outperformer

Ambuja Cement vs. Ultratech from Aug 2010 to May 2012



Price is perception. There is no right or wrong price in stock market. Most of the time bad boys of market get excessively punished and good boys are rewarded beyond what they deserve.

This strategy aims to find out such gaps and hedge not-all-that-bad with not-all-that-good boys.



These charts demonstrate price co-relation between two cement stocks Ambuja and Ultratech whose long-term co-relation is temporarily broken. There is an opportunity to long Ambuja and Short Ultratech.



Who should benefit from hedge strategies?

- Any investor who has invested in equity market or equity mutual funds and wants to hedge his portfolio.
- Any investor who wants steady returns under any market condition.
- Any investor who wants additional return on his portfolio by taking extra exposure through F&O.
- Any trader who wants to make regular return from stock market irrespective of market movements.



Our Expertise

We are specialized in market neutral strategies for last 5 years. We advise and help our clients to construct portfolio under market neutral approach.

Our proprietary technical tools help us to search from more than 10,000 possible combination of making a long and short pair.

We will make a presentation to you on request and demonstrate possibilities of making profit from virtually any market conditions.

For more details please contact us at:

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For more information on market neutral concept please log on to our product web site : www.gomarketneutral.com