



SISR Pairs Trading Report

Philip L. Miller – 646-415-9141
Chief Strategist
pmiller@sisresearch.com
www.sisresearch.com

United States Equity Markets

May 23, 2009

Pairs Trade: Long: Drillers & Independents; Short: Refiners

I. Introduction

Figure I: Correlation Matrix – Refiners vs. Drillers

SYMBOL	VLO	SUN	TSO	OXY	DVN	APA	PBR	DO
VLO	1.00	0.89	0.93	0.11	0.28	0.13	0.13	0.34
SUN	0.89	1.00	0.78	-0.21	0.00	-0.15	-0.20	0.01
TSO	0.93	0.78	1.00	0.12	0.25	0.09	0.14	0.33
OXY	0.11	-0.21	0.12	1.00	0.90	0.94	0.97	0.94
DVN	0.28	0.00	0.25	0.90	1.00	0.95	0.90	0.92
APA	0.13	-0.15	0.09	0.94	0.95	1.00	0.94	0.91
PBR	0.13	-0.20	0.14	0.97	0.90	0.94	1.00	0.95
DO	0.34	0.01	0.33	0.94	0.92	0.91	0.95	1.00

Source: Reuters, SISR

Last week the price of crude rose from the low \$50 per barrel to \$58.64 leading us at SISR to recognizing that whatever speculative fear in the markets that the U.S. Congress might take serious action against the oil companies, is only a distant memory. This week crude convincingly crossed the \$60 barrier and has traded above \$60 most of the week despite the fact that the equity markets have been teetering with a possible correction from the recent 30 plus percent move in the major averages from their lows.

II. Can the Price of Crude Increase in a Weakened International Economy with slack Demand?

The IEA last week stated that they expect to see the demand for crude fall by 2.56 million barrels per day (MBD) throughout 2009, meaning that despite the fact that there is less demand for oil on the

markets; the price has still risen by almost 100% from its low. In the U.S. there is so much distillate fuel that the U.S. is at record days of supply and demand is still down nearly 12% since from the middle of last year, and world economies are still not improving.

Economies throughout the world, at best are improving in the sense that the steep decline has abated, and the second derivative of growth may be positive, but the economies are still declining. Worldwide, economists at best expect that there will be growth by the end of the year in the U.S. with Europe improving somewhat later. China may improve sooner but it is hard to see how they can with exports being at 4 year lows, and their economy is driven by exports. World GDP for 2009 is projected by IEA to be down 1.5% which we believe to be optimistic and crude demand is highly correlated to GDP growth or decline.

Despite these factors we are projecting that crude oil will increase to at least \$70 to \$75 and possibly even higher by the end of summer 2009, and gasoline will increase to \$2.50 to \$2.70. Demand is slowing and the price of crude and gasoline is going up???. The reason why we expect that crude will increase is that: demand and supply conditions do not operate in the pure competitive market, and the control mechanism is the supply of crude which is controlled by countries and not companies. These countries have a very different optimization analytic than do companies, creating a clear distortion in traditional demand and supply metrics of analysis. OPEC has contracted 3.5MBD in output in response to the 2.5 MBD shortfall. (For a fuller analysis of this point please see our work on energy over the past few years and or contact SISR for specifics).

If this projection is correct we are recommending on a risk adjusted basis, a pairs trade between the drillers: going long, and the refiners: going short. We are projecting that the price of gasoline is approaching its potential limit with respect to the ability of the economy to tolerate a higher price. With respect to crude it is likely that it will increase faster than the ability of the refiners to increase their price structure, given the economy. At \$2.50 we are already seeing some signs of demand destruction, whereas the price for crude is determined on the supply side (For fuller analyses of this argument please consult much of the SISR work on oil over the past three years).

III. Pairs Trading Methodology

There are several ways to approach Pairs trades:

1. The most traditional way is to look for two companies that have a high correlation to one another i.e. before last year GM and F. Maybe Dell and HPQ and look for periods when the spread between them appears to be outsized then to go long the one that has not keep up with the other one and go long the one that has outperformed.

At SISR we like this method on a pure technical basis for very short term trading, but we are not a real fan of this approach, because it is two technically based and not sufficiently fundamentally derived.

2. The method that we at SISR prefer is to pick two companies like Dell and HPQ that have had a long strong relationship, then do careful valuations on the companies on decide which one is

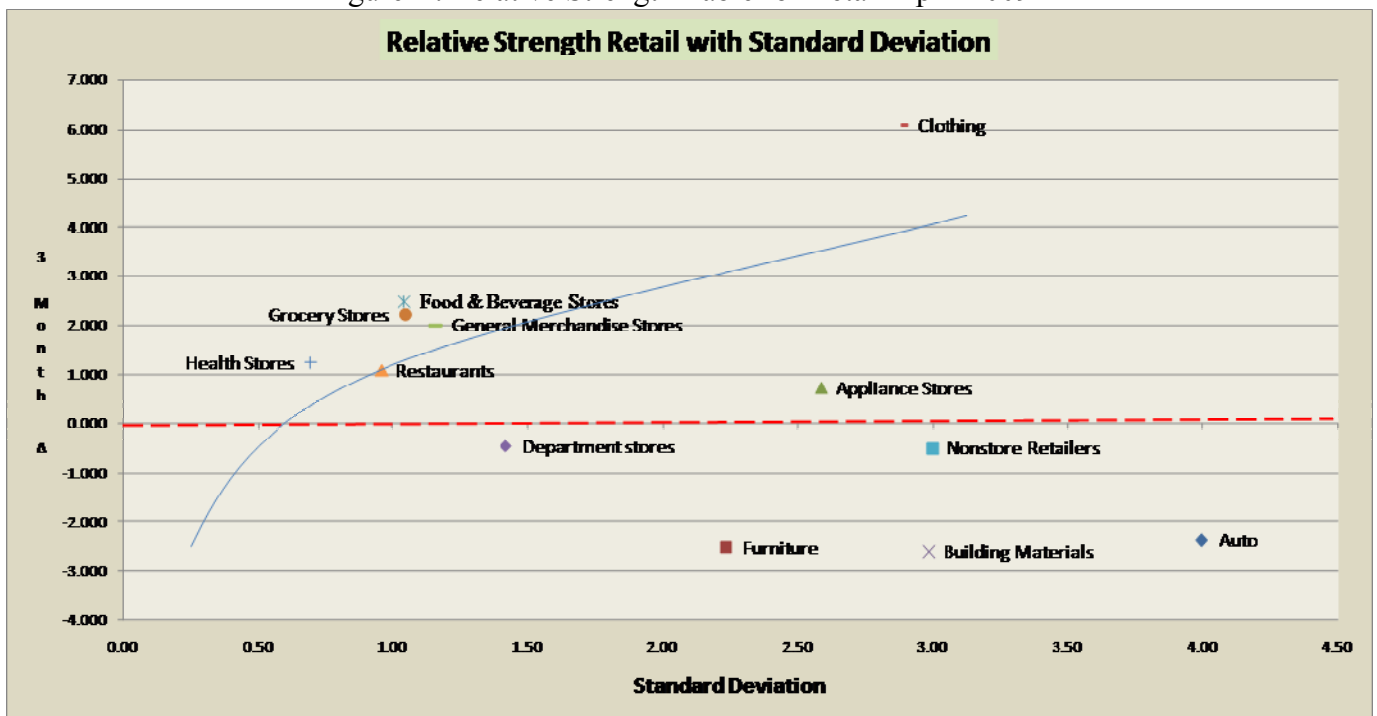
stronger fundamentally and chose the strong company from a fundamental basis and short the less strong company.

If you had used this method one would have done very well with Dell and HPQ over the past few years. If you used method 1 it would have been a disaster.

Today however Dell long may be the better pair because on a relative strength basis Dell may do better because of approach 1 in that it may not be losing as much market share and the real purchases will be industry which Dell has a better lock on.

3. Favored approach: Companies in completely different sectors that do not necessarily have a very strong correlation to one another with one sector outperforming the other sector.

Figure II: Relative Strength Table for Retail April 2009



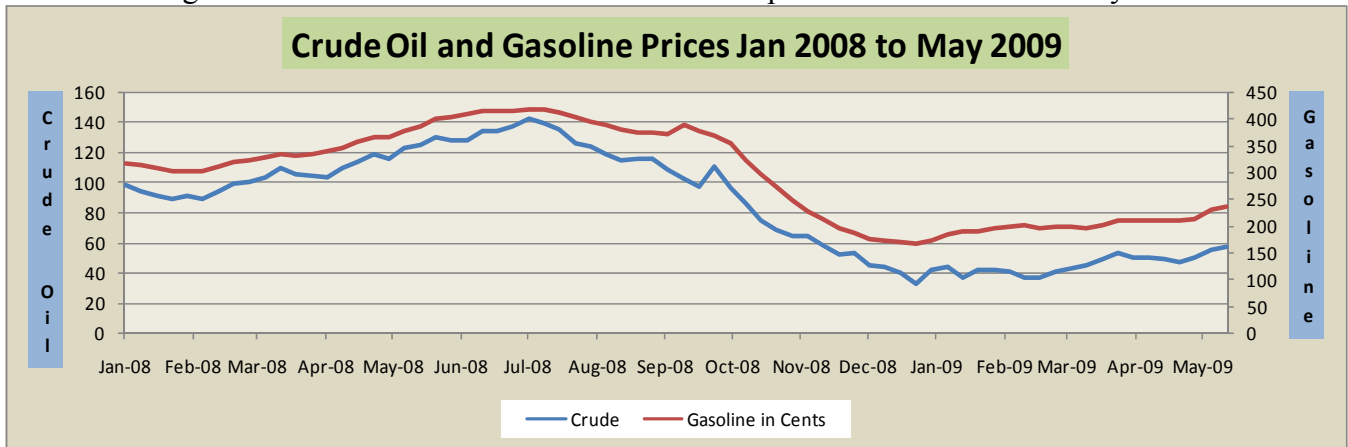
Source: DOC, SISR

Based on the evidence from Figure II we would look to clothing long and short furniture and building materials. Similarly we would go long Restaurants and short department stores. This table is a month old so none of these are appropriate now but that was the concept that we used in our model portfolio. When using this approach one looks for those stocks that have a negative correlation with one another and attempts to find those that going up and the other that is going down.

Taking this same approach to the Energy sector we would find that as the price of crude has risen the drillers have been the beneficiary. Interestingly the refiners have been able to keep up but we believe since gasoline is already near \$2.50 that they will no longer be able to transfer their costs to the consumer, since demand is already waning.

IV. Retail and the Impact of the Increasing Price of Gasoline

Figure II: Crude Oil/Barrel and Gasoline/Cents per Gallon Jan 2008 to May 2009



Source: EIA, SISR,

Crude has risen from the lows of \$30 per barrel in February to over \$62, more than a 100% increase in less than two months. In January and February when gasoline was selling under \$2 we saw a small pop in the retail clothing space as seen in Figure III, but as gasoline prices have increased again this small pop has gone away.

Figure III: General Merchandise and Clothing Stores Jan 2006 to April 2009



Source: DOC, SISR

To look at this same concept from a different perspective we find that the correlation coefficients between gasoline and retail are generally negative. In late 2008 we ran these correlations as seen in Figure IV.

We have not updated this table since late 2008 because the tables on the right and left side are remarkably similar. In late 2008 we run the correlation from 1992 to 2008 and from 2006 to 2008 and found that there is little difference. The valued added to update this table as a consequence at this point is low since we are attempting to make the simple point that retail and particularly clothing has

historically been affected by the price of gasoline. There is some nuance around women’s clothing but that is not at issue here. Our interest here is very modest and to show that as the price of crude raises the retail sector is negatively affected.

Figure IV: Correlation Table of the Impact of the Price of Gasoline on the Retail Sector

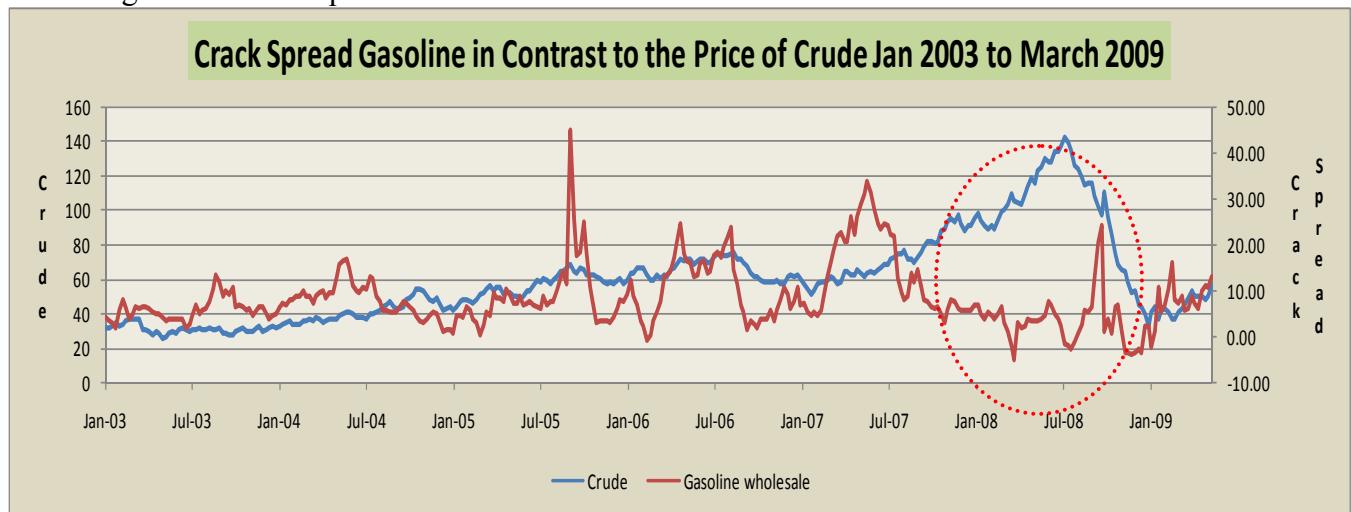
Sector 12 M Δ 1992 to 2008	Gasoline	Sector 12 M Δ 2006 to 2008	Gasoline
Gasoline	1.00	Gasoline	1.00
Gasoline Stations	0.97	Gasoline Stations	0.98
Nonstore retailers	0.46	Discount and other General Merchan	0.17
Women's Clothing	0.31	Grocery Stores	0.12
Grocery Stores	0.30	Automotive Parts	0.08
Men and Family Clothing Stores	0.12	Nonstore retailers	0.04
Restaurants	0.09	Shoe Stores	-0.01
Furniture	0.04	Women's Clothing	-0.04
Jewelry Stores	0.00	Furniture	-0.11
Automotive Parts	-0.01	Jewelry Stores	-0.13
Discount and other General Merchan	-0.08	Restaurants	-0.19
Shoe Stores	-0.10	Computer & Software stores	-0.34
Pharmacies & Drug Stores	-0.21	Department stores	-0.45
Computer & Software stores	-0.25	Men and Family Clothing Stores	-0.50
Department stores	-0.29	Pharmacies & Drug Stores	-0.55
Automobile Dealers	-0.30	Automobile Dealers	-0.64

Source: Department of Commerce, SISR

V. Stress Points for Refiners as Crude Increases

Throughout much of 2007 when the price of gasoline began to appreciate and the price of gasoline crossed the \$3.00 mark on the way to \$4.17 per gallon the refiners began to struggle to keep up with the rapidly increasing price of crude. This is represented by the gap between the crack spread for gasoline and the price of crude, as seen in Figure V. As crude increased the crack spread went to below zero, indicating that the refiners were losing money on the sale of gasoline.

Figure V: Crack Spread for Gasoline relative to the Price of Crude Jan 2003 to March 2009



Source: EIA, SISR

VI. Stocks appropriate for this Trade

In Figure I we highlight 8 companies 3 refiners and 5 drillers & independents. We find in Figure I that the correlation between these companies is low and in some instances even negative. We ran the correlation matrix for weekly stock prices from Jan 2005 to May 2009. We could have done this slightly more accurately by correlating the returns but the net effect would have been the same. The companies we highlighted, because of their intra sector high correlation and their inter sector low correlations are the following:

A. Refiners

1. Valero Energy Corp. (VLO)
2. Sunoco Inc. (SUN)
3. Tesoro Corporation (TSO)

B. Drillers & Independents

1. Occidental Petroleum Corp (OXY)
2. Devon Energy Corporation (DVN)
3. Apache Corp. (APA)
4. Petroleo Brasileiro (PBR)
5. Diamond Offshore Drilling Inc. (DO).

Any combination of these companies we would strongly recommend as pair trade candidates. We would recommend a basket from each group beta weighted for optimal results. We would go long the drillers/independents and short the refiners.

Certification:

I, Philip L. Miller (or any research analysts at SISR Inc.) certify/certifies that the views expressed in this report accurately reflect my personal views about the subject companies and securities. In addition no part of my compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

Recommendation Scale:

Stock Rating:

- 1 – Recommended List – The stock has our highest recommendation and is expected to outperform the average equal weighted expected total return of the overall Market irrespective of sector. Our investment horizon is 12 – 18 months except as specified by the reporting analyst.
- 2 – Overweight – The stock is expected to outperform the equal weighted expected total return of the sector coverage. Our investment horizon is 12 – 18 months except as specified by the reporting analyst.
- 3 – Neutral – The stock is expected to perform in line with the equal weighted expected total return of the sector coverage. Our investment horizon is 12 -18 months except as specified by the reporting analyst.
- 4 – Underweight – The stock is expected to under-perform the equal weighted expected total return of the sector coverage. Our investment horizon is 12 -18 months except as specified by the reporting analyst.
- 5 – Rating Suspended – The rating and target price have been suspended temporarily to comply with applicable regulations and/or firm policies in certain circumstances including when SISR Inc. is acting in an advisory capacity in a merger or strategic transaction involving the company.

Sector Ratings:

- 1 - Recommended Sector – The sector has the highest recommendation with continued improving valuations and rapid growth.
- 2 – Positive – The sector fundamentals and valuations are improving with a positive second derivative.
- 3 – Neutral – The sector fundamentals and valuations are flat with the second derivative close to zero or with a neutral slope.
4. Negative – The sector fundamentals and valuations are negative with a negative second derivative.
- 5 – Rating Suspended – The rating and sector targets have been suspended temporarily to comply with applicable regulations and/or firm policies in certain circumstances including when SISR Inc. is acting in an advisory capacity in a merger or strategic transaction involving the company.

Price Chart:

A price chart, with changes of ratings and price targets in prior periods, is included above, for all securities covered in this report.

Additional Disclosures:

This report is for information purposes only and should not be construed as a solicitation or an offer to buy the securities or other instruments mentioned in the report. This report may not be reproduced in any manner, without the written permission of SISR Inc.

This research report is based on current public information, with the possible exception of disclosures relating to SISR Inc., that SISR Inc. deems to be reliable and as accurate as reasonably possible. SISR Inc., however, makes no claim to the accuracy and completeness of this reports, and this report should not be relied on as such, or as a statement of factual content.

This research report is prepared for general information purposes only. In addition this information does not consider the specific investment objectives, financial situation and particular needs of any individual, or institution. Investors and/or institution should seek financial advice and or internal due diligence for institutional investors, as to the appropriateness of investing in any securities or investment strategies mentioned or recommended.

Analyst as Officer or Director: No analyst will serve as an Officer or Director. SISR Inc. prohibits its analysts, persons reporting to analysts or members of their households from serving as an officer, director, advisory board member or employee of any company in the analyst's area of coverage.

Ownership and Material Conflicts of Interests: SISR Inc. permits ownership of the recommended securities subject to all the NASD rules regarding the ownership of securities by analysts. Since our analysis is economic in origin and subsector driven we expect all analysts to cover the universe of all stocks and as a consequence limiting the analyst or the firm to ownership of the underlying securities would in essence require these entities to reframe from investing in the equity market.

Analyst Compensation: Analysts are paid in part based on the profitability of SISR Inc., some of which may include investment banking and consulting revenues.

Disclosures are required in the United States for any of the following:

1. acting as a financial advisor,
2. manager or co-,manager in a pending transaction
3. 1% or other ownership, long or short
4. compensation for certain services
5. types of client relationships
6. managed/co managed public offerings in prior periods
7. directorships
8. market making and/or specialist role.

These disclosures are included in the company-specific disclosures above for any of the above disclosures that are required.