

What's New at Arrowstreet?

We hope that you are finding time to enjoy the summer of 2008. In this edition of the Journal, we feature a white paper by Tuomo Vuolteenaho outlining his talk at our recent Client Conference. This white paper highlights the ways in which indirect (related) stock information can be used in constructing spillover value signals.

Q2 2008 Review:**Investment Performance Attribution:**

The equity markets remained highly volatile through the second quarter of 2008. Throughout most of the quarter Arrowstreet's strategies benefited from the forecasting power of both our momentum and earnings signals groups, as well as underweights to the financial sector and overweights to energy and materials sectors. Despite a challenging June, most of Arrowstreet's strategies had positive relative performance in the second quarter.

Business Growth:

During the second quarter, firm-wide assets under management at Arrowstreet increased to \$23.3 billion thanks to the addition of two new clients and several new accounts, including Arrowstreet's first global 130/30 account, which seeded our new Dublin-based commingled fund.

Team Members:

The Arrowstreet team continues to grow. During the second quarter, the firm added a number of new employees, including Eugene Okon, a new member of Arrowstreet's research team. You'll find a profile of Eugene on page 3 of the Journal.

As always, we are interested in your views and encourage your feedback. Please email your thoughts to us at:

info@arrowstreetcapital.com

Linkages Revisited: Information in the Value Signals of Related Stocks

Tuomo Vuolteenaho, Ph.D.
Arrowstreet Capital, L.P.

From Arrowstreet's inception, one of the hallmarks of our investment approach has been to focus on indirect or spillover effects that operate across stocks.

Over the recent years, we have refined this approach by building a model of inter-company linkages that predicts the strength of the relationship between any two companies. In earlier conferences we have introduced how one stock's momentum may forecast the return of another, related stock.

This talk focuses on the ways in which the related stock information can be used in constructing spillover value signals.

On the one hand, if any individual company's value signals are measured with error, the value signals of related stocks can be used as a confirming signal with a positive coefficient in a return prediction regression.

On the other hand, if a stock's valuation ratios revert towards the related stock average, the value signals of related stocks can be used as comparables with a negative coefficient in a return prediction regression.

We examine how these two effects interplay with forecast horizon and various portfolio construction objectives and constraints.

For a complete version of this article, please visit:
http://www.arrowstreetcapital.com/research_whitepaper.htm

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June 2008 Investment Outlook

Global/International Equity Strategy

Developed Markets Overview: 2nd Quarter 2008

Global equity markets rallied through April and early May before falling back to lows for the year at the end of June as concerns over slowing economic growth and rising inflation made investors increasingly pessimistic. Overall, the MSCI World Index of developed countries declined -1.66% in Q2 and posted a drop of -10.57% in the first half of 2008. The rally early in the second quarter was concentrated in stocks offering good value. But investor confidence waned in the second half of the quarter as poor economic news hurt growth expectations. Government bonds rallied late in the quarter as falling stock markets pushed investors into safer investments.

Commodity prices continued to climb as demand remained strong despite higher prices. The Reuters/Jefferies CRB index rose 19.6% during the quarter, raising concerns that high raw material prices will hurt growth. The U.S. Dollar stabilized during the second quarter after falling for six straight quarters versus an average of other major currencies. Continued declines in the U.S. housing market drew proposals in the U.S. Senate for programs to limit foreclosures, potentially saving 2 million borrowers from foreclosure but causing concern among mortgage-backed security investors.

At the country level, Norway and Canada were the best performing developed markets during the second quarter. Both resource-rich nations greatly benefitted from the commodity boom. The Energy sector represents over half of Norway's market capitalization and the Canada economy is also heavily weighted towards Energy and Materials companies. On the other hand, Spain, which was hurt by a steep fall in the housing market, lagged global market returns. Layoffs at home construction firms have helped fuel unemployment, which was up 21.6% in June from the previous year.

Among global sectors, Energy was the best performer during the second quarter as crude oil prices rose to record highs. The perception of tight supplies and concerns of a possible conflict between Israel and Iran arising from Iran's efforts to obtain nuclear weapons bid energy prices higher. Conversely, Financials stocks were the worst performers for the second quarter. Banks continued to suffer as they are forced to further write down subprime loan holdings and their access to new credit worsened. Ongoing weakness in the housing market in the US and the UK caused lenders in both countries to scale back growth and cut jobs.

Developed Markets Performance Attribution

Three country/sector baskets that impacted the performance of Arrowstreet's developed markets portfolios during the quarter are described here:

United Kingdom Energy - The stock price of Royal Dutch Shell PLC B rose strongly in the second quarter of 2008. Positive stock performance was due to better profits as a result of record high oil prices, as well as stock buybacks. Arrowstreet's position in Royal Dutch Shell PLC (CL B) was motivated by positive stock level value terms, especially price-earnings and book value, as well as by basket level price momentum.

United States Financials - Our stock selection in the United States Financials basket negatively impacted performance. While we were underweight the basket as a whole, our overweight in Washington Mutual lost value during the quarter. Positive value signals and price momentum throughout the quarter were the main motivations behind the overweight position. The stock dropped due to reported losses greater than first expected, along with a report by a Goldman Sachs analyst urging investors to sell.

German Materials - Thyssen Krupp, Germany's largest steel manufacturer, saw its stock rise about 12% from rising steel prices. This benefitted Arrowstreet's portfolios. Our large position in the security is based on strong stock value terms, like price-to-book and dividend yield, and positive basket price momentum.

Specific opportunities that we believe will offer attractive return potential include:

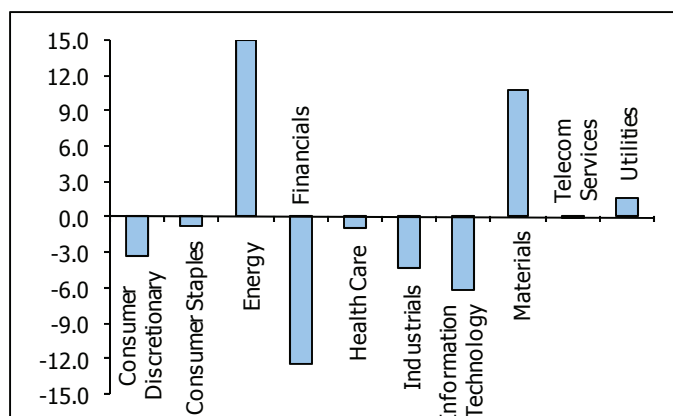
Ingersoll-Rand Company Ltd. (United States Industrials) - Ingersoll-Rand Company Ltd. completed their takeover of Trane Inc. in June, expanding the company's climate-control business to cover refrigerated truck parts, display cases, and ventilation systems. The company recently reported second quarter earnings had grown 26 percent on gains from the acquisition and sales growth. Ingersoll-Rand is favored for attractive earnings signals and cheap peer relative valuations.

Sanofi-Aventis SA (French Health Care) - Sanofi-Aventis SA, France's largest drug maker, is currently favored for positive momentum signals and a number of attractive valuation measures. Despite declining profits in the second quarter, the company increased earnings guidance for the full year citing strong demand in the U.S. for cancer and diabetes drugs.

July 2008 Active Country Weights (%)
(Citigroup PMI World)



July 2008 Active Sector Weights (%)
(Citigroup PMI World)



Data provided above is for Arrowstreet's longest standing representative portfolio for the Global Equity strategy as of the end of July.

June 2008 Investment Outlook Emerging Markets Equity Strategy

Emerging Markets Overview: 2nd Quarter 2008

After rebounding from first-quarter lows, emerging stocks ended the quarter slightly negative, posting a loss of -0.80% in USD terms. In the midst of an economic slowdown and a bearish global equity market, the MSCI Emerging Markets Index recorded a year-to-date loss of -11.64% through the end of Q2. Market volatility at an overall index level declined during Q2, after experiencing a high degree of volatility earlier in the year. The 100-day annualized daily volatility on the MSCI Emerging Market Index measured at 19.64% as of June 30, 2008.

From a country perspective, Brazil continued to outperform during the second quarter largely on the back of gains in the Energy sector. Petrobras, the largest company in Brazil and 6th largest in the world by market capitalization, announced plans to order \$30 billion worth of deep sea drilling equipment to access reserves recently discovered in the Tupi and Carioca fields, which are estimated to hold up to 40 billion barrels of oil.

Conversely, India, Pakistan, and the Philippines were the worst performing emerging markets in the second quarter. Slowing growth and rising prices have driven down stock prices as central banks take action to curb inflation. Expectations for growth in India have been cut back to a 7 percent range for this fiscal year after topping 9 percent for three consecutive years. Foreigners withdrew an estimated \$3 billion during the first quarter, helping drive the stock market down over 40 percent year to date.

Like in developed markets, the Energy sector in emerging markets was the best performer during the second quarter. Energy prices continued to climb higher as demand for oil and natural gas remained strong, keeping supplies tight. Meanwhile, the Industrials, Consumer Discretionary, and Information Technology sectors were the worst-performing groups during the quarter, as fears of a global recession hurt the profit outlooks for these companies.

Emerging Markets Performance Attribution

Three country/sector baskets that impacted the performance of Arrowstreet's emerging markets portfolios during the quarter are described here:

Brazilian Utilities - Brazilian state electric company Eletrobras saw its shares rise sharply at the end of the second quarter to 2008 on news that the company will pay \$5.2 billion of dividends it has owed shareholders since the 1980's. Resolving this long-standing issue will make it easier for Eletrobras to raise funds abroad in the future. Arrowstreet's overweight positions in the stock were based on attractive value measures, including book to price ratio.

Turkish Materials - Turkish steelmaker Ereğli Demir & Çelik Fabrikalari rose to new highs during the second quarter as steel giant ArcelorMittal increased its holdings of the company, fueling speculation that ArcelorMittal is interested in buying a controlling stake. Our overweight positions in the stock were based on attractive price momentum.

Taiwanese Materials - Formosa Chemical and Fiber Corp lost value in the second quarter as the company faced rising raw material costs, as oil prices climbed higher. The company uses petroleum based chemicals to manufacture computer casings, toys and auto parts. Overweight positions, which hurt relative performance, were based on favorable basket level momentum and value terms.

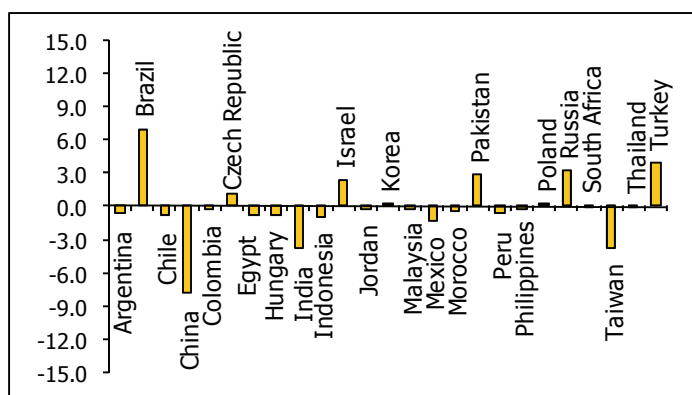
Specific opportunities that we believe will offer attractive return potential include:

China National Offshore Oil Corp (CNOOC) (Chinese Energy) - The Chinese Energy basket is an area we expect to outperform based on attractive price momentum and basket level earnings terms.

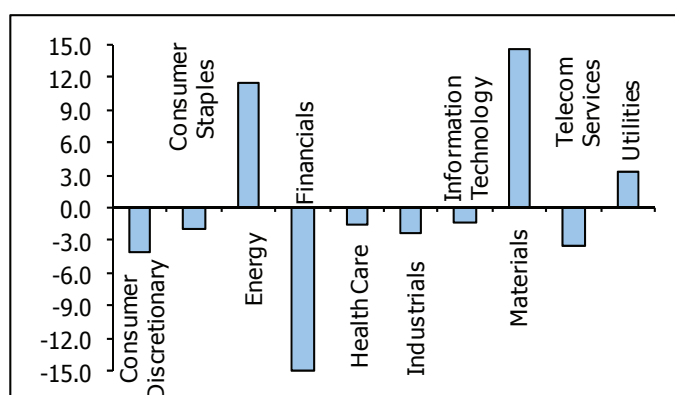
Within the basket we favor oil producer CNOOC due to positive price momentum terms. The stock has benefitted from rising energy costs and the company plans to increase its capital spending to continue to expand its production to meet China's growing energy demand.

Ereğli Demir ve Çelik Fabrikalari (EDCF) (Turkish Materials) - Rising steel prices and continued consolidation in the steel industry have benefitted Turkish steelmaker EDCF. The Turkish Materials basket is expected to outperform based on price momentum signals as well as basket level value terms. EDCF, the largest stock by market cap in the basket, is favored based on earnings terms.

**July 2008 Active Country Weights (%)
(MSCI EM Index)**



**July 2008 Active Sector Weights (%)
(MSCI EM Index)**



Data provided above is for Arrowstreet's longest standing representative portfolio for the Emerging Markets Equity strategy as of the end of July.

Employee Profiles — Eugene Okon – Associate, Research

Eugene assists Arrowstreet's research team in the development and enhancement of the firm's forecasting and risk models. Currently he is working on improving the existing portfolio optimization process.

Prior to joining Arrowstreet, Eugene was a Business Analyst at Morgan Stanley in New York City. Eugene received a BS in Operations Research with related study in Psychology and Computer Science from Columbia University in May 2006.

