

What's New at Arrowstreet?

Arrowstreet is excited to announce that the firm will be moving its office location in Q1 2008. Our new offices will be located on the 30th Floor of the John Hancock tower in Boston's Back Bay, just 4 miles from our current location. Stay tuned for more details in the next issue of the Journal.

In this edition of the Journal, we feature an article on the concept of beta arbitrage, which is employed in Arrowstreet's long/short equity strategy. In addition, we have included a brief write-up of Arrowstreet's interpretation of the market turbulence of last July and August.

Q3 2007 Review:

Investment Performance Attribution:

The equity markets were quite turbulent during the third quarter of 2007. Arrowstreet's strategies benefitted from the influence of our indirect signals (those that forecast a stock's return based upon the characteristics of related stocks), which partially offset the underperformance attributed to our direct signals (those that forecast a stock's return based on its own characteristics).

Business Growth:

The third quarter was a period of sustained growth at Arrowstreet as assets under management increased to \$23.7 billion. Several new accounts funded including two new clients.

Team Members:

The Arrowstreet team continues to expand. During the third quarter, the firm added six new employees, including Larissa Duzhansky, the newest member of Arrowstreet's portfolio management team. You'll find a profile of Larissa 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

Beta Arbitrage
By John Capeci, Ph.D. Arrowstreet Capital, L.P

The intent of beta arbitrage is to exploit the average underperformance of high beta stocks relative to the return predictions of standard asset pricing models. Exploiting this insight must be done carefully because the return advantage of holding long portfolios of low beta stocks comes with significant risk.

Arrowstreet exploits beta arbitrage in its long/short strategy by restricting the beta of the portfolio to be zero, but not restricting the net investment to equal a zero. In addition, Arrowstreet dynamically varies the degree to which it exploits beta arbitrage based on its return forecasts of high beta versus low beta stocks.

In this paper John Capeci provides a background on how the beta arbitrage component of Arrowstreet's long/short equity strategy has worked over time.

The Quant Meltdown of July and August, 2007
By Peter Rathjens, Ph.D., Arrowstreet Capital, L.P

Many investors have been made aware of the sharp liquidity crisis that developed in the credit markets in the early part of the third quarter of 2007. In turn, this liquidity crisis migrated into a segment of the market for public equities: those that were attractive on the basis of well known and widely monitored quantitative signals.

In this paper Peter Rathjens explores what happened in the early part of the third quarter of 2007, namely:

- a recounting of what happened during July and August,
- Arrowstreet's interpretation of those events,
- an attribution of Arrowstreet's process, and
- a discussion of how Arrowstreet's research and process can be enhanced from what we learned during the period.

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

The Arrowstreet Journal is provided for informational purposes only and is not intended as investment advice. References to recent portfolio activity and holdings are not intended as investment advice. Arrowstreet Capital, L.P. may have already bought or sold or may in the future buy or sell these securities on behalf of its clients. There can be no assurance that an investment in the securities of these issuers, or in any investment recommendation, has been or will be profitable to Arrowstreet's clients. A complete list of buys and sells is available upon request.

September 2007 Investment Outlook

Global/International Equity Strategy

Developed Markets Performance Attribution: 3rd Quarter 2007

Country drivers: Finland continued to outpace the broader market during the third quarter, posting the best year to date return of developed markets. Nokia OYJ, the world's largest mobile phone maker, gained on improved second quarter earnings. Nokia OYJ continues to expand into new areas, including online music downloads and a partnering with Visa to implement credit card payment with Nokia's mobile devices. Our stock and basket selection in Finland detracted slightly from performance.

In addition, during the third quarter Hong Kong stocks experienced their largest quarterly gain since 1999. Investors speculated that the Chinese government will ease its restrictions and allow some individual investors to buy shares in Hong Kong. This would likely result in investors pouring into shares of Chinese companies listed in Hong Kong, where valuations on these companies are less than half compared to the valuations in Shanghai and Shenzhen. The Chinese government hopes that by relaxing its restrictions on overseas investment, it can cool the rapid domestic growth and inflation China has been experiencing.

Sector drivers: Materials benefited from a rally in commodity prices during the third quarter. Gold prices gained roughly 14% while the U.S. dollar weakened. Base metals such as copper and nickel experienced a volatile third quarter, but rose steadily during August and September. Investors' bullish stance was supported by the belief that continued economic growth in India and China would keep commodity prices high despite a slowdown in the U.S. economy. Our stock and basket selection within the Materials sector detracted slightly from relative performance.

On the other hand, the Financial sector experienced a volatile third quarter as investors expressed concerns about banks' exposure to sub-prime mortgages. Also, the third quarter saw a sharp decline in previously record breaking mergers and acquisitions activity as credit markets tightened. However, The Financial sector rebounded late in the quarter as the U.S. Federal Reserve cut interest rate by 50 basis points.

Developed Markets Overview

The third quarter was marked by a dramatic increase in overall market volatility, as well as a high degree of intra-market return dispersion. While potentially an attractive environment for stock pickers, these circumstances proved to be negative for quantitatively-oriented shops, particularly in the beginning of August. Many medium to long term predictive signals, especially stock-specific value signals, performed perversely in the first week of August. These signals then showed a reversal beginning in the second week of August. The effect was strongest in markets where quantitative investment processes are most prevalent, such as in US small cap, and not as pronounced where this style is less widespread, such as in emerging markets.

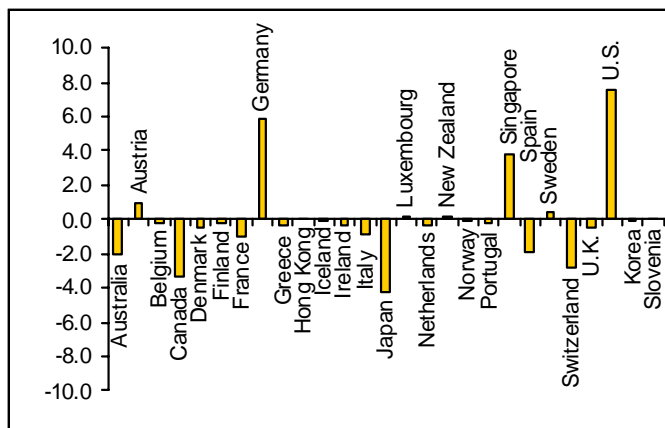
The evidence suggests that the transitory pricing pressure on equities common to many quantitatively oriented strategies, including Arrowstreet, was initially triggered by the sub-prime mortgage crisis, with multi-strategy hedge funds being the primary transmission mechanism of contagion into quantitative equity strategies. As losses mounted and liquidity dried up in the credit market, highly levered funds were forced into de-levering through fire sale liquidations of the next most liquid instrument held, specifically publicly-traded equities. The extreme price movements and the rapidity with which the changes occurred were amplified by many factors, including a crowding of basic quantitative strategies and the increased leverage needed to maintain returns.

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

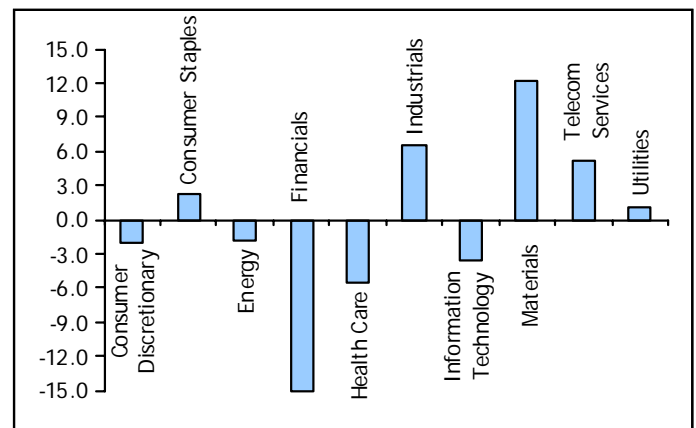
Kraft Foods (U.S. Consumer Staples) — Our favorable outlook for Kraft Foods is partly driven by both direct (i.e., stock) and indirect (i.e., country/sector basket) considerations. The U.S. Consumer Staples basket is an area we see as presenting attractive opportunities. Our positioning in this basket is based mainly on favorable price momentum terms. Positive basket-level earnings terms and positive macro-economic terms for the U.S. in general also contribute to the basket positive forecast. At the stock level, the company continues to reshape itself following its March 2007 spin-off from conglomerate Altria. It has focused on selling brands that do not fit with the company's long-term strategy and acquired new business lines. Kraft's stock is attractive based on our model's value terms, particularly price to book ratio.

BT Group (U.K. Telecommunications) – BT Group is Great Britain's largest telephone company and a stock that we expect to outperform the broad market. Its basket is attractive based on price momentum and value terms. Furthermore, in our direct model, BT Group is favored because of positive earnings terms. The firm has continued its efforts to expand into new markets and new technologies through acquisitions and strategic partnerships outside the U.K.

October 2007 Active Country Weights (%)
(Citigroup PMI World)



October 2007 Active Sector Weights (%)
(Citigroup PMI World)



September 2007 Investment Outlook Emerging Markets Equity Strategy

Emerging Markets Performance Attribution: 3rd Quarter 2007

Country Drivers: During the third quarter, China (+41.9%) and Turkey (+24.4%) led the way. Our emerging markets strategy benefited from an overweight exposure to stocks in the Chinese Industrials basket and, in particular, our holding in China Shipping Container Lines. In Turkey, our overweight position in Ereğli Demir & Çelik Fabrikalari, Turkey's largest steelmaker, benefited from rising steel prices.

Sector Drivers: Materials in emerging markets had the highest return (+26.8%) during the third quarter followed by Information Technology (+20.4%). We held an overweight position in steel producer POSCO (Korea Materials), which saw shares climb during the third quarter as the company continued to expand its operations throughout Asia and demand for steel remained high on the back of increased ship-building. Despite the rising tide in the IT sector, we added value through an underweight position in Taiwan Semiconductor, which fell dramatically in late July as the company reported its third straight profit decline due to slowing electronics sales.

Emerging Markets Overview

Emerging equities posted another strong gain during the third quarter of 2007; the MSCI EMF index returned +14.52% in USD terms. In contrast, developed equities recorded a more modest gain; the MSCI World Index of developed countries rose +2.36% for the quarter. Market volatility at an overall index level surged in August during the midst of credit concerns and a global liquidation of quantitative investment strategies. Longer-term measures of volatility rose, with the 100-day annualised daily volatility on the MSCI Emerging Market Index measuring above 22% as of the end of the quarter.

The correlation between emerging and developed markets remains high. During Q3, the correlation between the MSCI Emerging Markets Index and the MSCI World Developed Index measured at 0.699. This was based on 64 trading day observations between July 3 and September 28 2007, with a t-statistic of 7.7 at the 99% confidence level. For the full year, based on 194 observations, the correlation was 0.736 with a t-stat of 15.04 at the 99% confidence level.

In the wake of the volatility in the global markets and the evolving economic landscape, many investors are now questioning traditional senti-

ments about the emerging asset class. Once viewed as riskier assets, emerging market stocks historically commanded lower valuation multiples relative to their developed market counterparts. The compression of the valuation discount for emerging stocks was interpreted as a negative development -- an indicator the asset class might be overvalued, and possibly due for a correction.

An evolving viewpoint among many investors is that emerging equities are now less risky than many developed equities, and should command richer multiples based on their higher growth prospects, the stability of their earnings stream, and the economic health of the countries in which they operate. This is well-illustrated by the following comparisons: Based on actual earnings, Korean steelmaker Posco commands a price to earnings multiple of 18.77, versus that of German steelmaker Thyssenkrupp, which has a P/E of 10.59. Brazilian bank Bradesco has a multiple of 19.08, versus Citigroup's ratio of 10.68, the latter being weighed down by concerns that subprime mortgage losses could dampen earnings. In August, emerging stocks traded at a slight valuation premium of 1.6% relative to developed equities, based on forward-looking earnings estimates.*

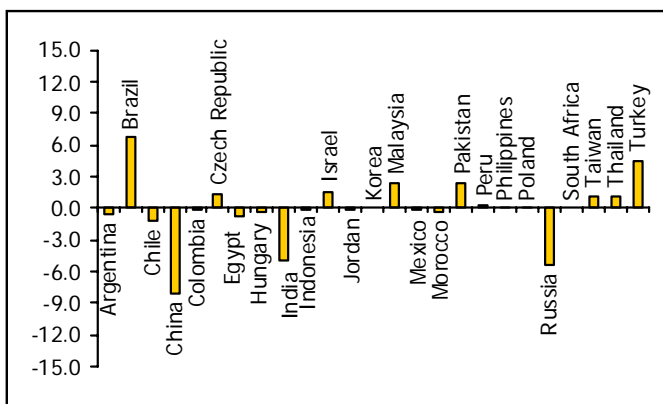
*Source: "Emerging-Market Stocks Grow Richer Than U.S., Europe" Michael Tsang and Daniel Hauck, Bloomberg News, August 13, 2007, page 3.

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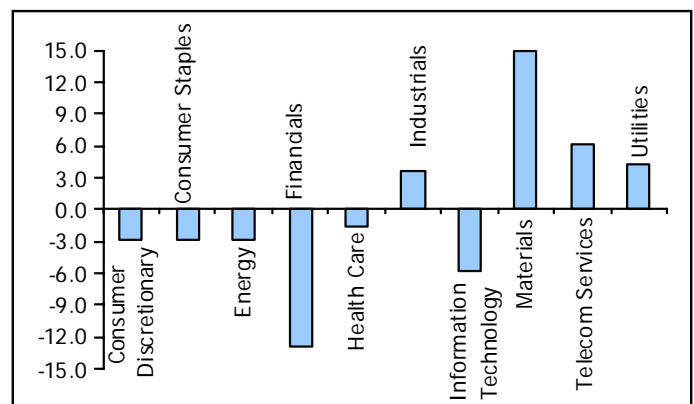
Tupras (Turkey Energy) – Turkish Energy stocks look exceptionally attractive on a valuation basis. We find the oil refiner Tupras even more attractive based on smart analyst revision signals. The company is benefitting from widening refining margins as global demand for gasoline and other oil products continues to expand faster than refining capacity.

Nan Ya Plastics (Taiwan Materials) – Strong price momentum terms and value terms make the Taiwan Materials basket a highly attractive investment opportunity. Nan Ya Plastics, the world's largest plastics processor, is positioned to benefit from rising prices for its chemical products and continues to expand into new markets such as the manufacturing of fabrics and electronics components. We favor the stock based also on recent upgrades among lead sell-side analysts.

**October 2007 Active Country Weights (%)
(MSCI EM Index)**



**October 2007 Active Sector Weights (%)
(MSCI EM Index)**



Employee Profiles — Larissa Duzhansky – Associate, Portfolio Management

Larissa Duzhansky works with Ezra Levine, Jim Thames, and George Pararas where she is responsible for many functions associated with the day-to-day implementation of the firm's investment strategies.

Prior to joining Arrowstreet, Larissa worked as a Consultant for Global Insight, where she created specialized economic solutions that assisted clients in making investment decisions.

Larissa received her Master of Arts in International Economics and Finance from Brandeis University International Business School in 2006. Larissa graduated from Brandeis University with a B.A. in Economics in 2004.

