

**Arrowstreet Capital has a new location!**

As of January 18, 2008, Arrowstreet is now located in Boston's Back Bay, just 4 miles from our former office. Please note our new address and telephone number:

Arrowstreet Capital, L.P.  
The John Hancock Tower  
200 Clarendon Street, 30<sup>th</sup> Floor  
Boston, MA 02116 USA  
Tel: +1 617 919 0000  
Fax: +1 617 919 0001

All email addresses have remained the same.

**What's New at Arrowstreet?**

In this edition of the Journal, we feature Arrowstreet's latest white paper on a topic of increasing interest, active extension (e.g., 130/30) strategies. Be sure to read this brief paper for a view on how these strategies compare to both long-only and long/short strategies.

**Q4 2007 Review:**

**Investment Performance Attribution:**

The fourth quarter of 2007 saw a continuation of the turbulence that plagued global and international equity markets in Q3. Despite the positive influence of Arrowstreet's indirect signals (those that forecast a stock's return based upon the characteristics of related stocks), many of our strategies were hurt by concerns about value-based investment concepts and a rapid change in market leadership as investors increasingly assigned a high likelihood to a global macroeconomic slowdown.

**Business Growth:**

During the fourth quarter, Arrowstreet's assets under management held steady at \$23.5 billion. Several new global equity accounts funded on behalf of both new and existing clients.

As always, we are interested in your views and encourage your feedback. Please email your thoughts to us at: [info@arrowstreetcapital.com](mailto:info@arrowstreetcapital.com)

**Why Active Extension Strategies (e.g., 130/30)?**  
By Jim Thames, CFA Arrowstreet Capital, L.P

In recent years, active extension strategies have grown in usage among the institutional investment community. In this note, we first provide a precise definition of what we mean by an extension strategy. We then explore some of the sources of their growing popularity, as well as their costs and benefits relative to both long-only alternatives as well as more traditional long-short strategies. Finally, we present some concluding comments.

**What is an "active extension strategy"?**

Active extension strategies represent a hybrid between long-only and long-short strategies. Specifically, the portfolio is oriented around a long-only benchmark, but employs a moderate amount of shorting and leverage. Shorting in this case is used to:

1. better exploit negative views on stocks that are expected to underperform; and
2. fund additional long positions that are expected to outperform.

For example, in the case of a 130/30 strategy this would result in a levered portfolio of approximately 1.6X capital, which is intended to display a risk profile comparable to a long-only portfolio with 100% market exposure and/or a beta of approximately equal to 1.0.

**Why the growing interest?**

While there is probably no one single driving force behind the growth in these strategies, we believe that a combination of the following considerations offer an explanation:

1. Investor's desire to improve alpha over traditional long-only strategies;
2. Increasing comfort with short and levered investing on the part of investors and investment managers;
3. Greater transparency and understanding of performance results; and
4. Increasing product availability.

For a complete version of this article, please visit:  
[http://www.arrowstreetcapital.com/research\\_whitepaper.htm](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.

## December 2007 Investment Outlook

### Global/International Equity Strategy

#### Developed Markets Performance Attribution: 4<sup>th</sup> Quarter 2007

The fourth quarter saw a continuation of higher global market volatility on worries from a slowing U.S. economy and rising inflation. Volatility measures were comparable to levels observed in August 2007. The U.S. Dollar fell to new lows during the quarter as expectations of further interest rate cuts by the U.S. Federal Reserve grew. This weakening of the U.S. Dollar, paired with sustained demand from China for energy, raw materials, and food drove commodity prices to record highs.

There was continued uncertainty over further write-downs related to financial companies' sub-prime mortgage holdings in the face of the ongoing weakening of the U.S. housing market. With the release of Q3 earnings in October, corporate earnings began exhibiting the effects of the slow down in the U.S. housing market and disruption to the credit markets. Sovereign wealth funds, largely from Asia and the Middle East, became active in a number of high-profile deals during the quarter. Sub-prime related write-downs hurt the stock price of a number of financial companies, making them attractive to cash-rich nations. Notwithstanding this, credit markets tightened significantly in November, contributing to a sharp drop in equity markets that month. Credit markets improved somewhat in December as central banks took dramatic steps to add liquidity and equity markets recovered, though they have remained volatile.

#### Developed Markets Overview

In terms of country drivers, Spanish stocks experienced the largest quarterly gain among global developed markets during the fourth quarter. In particular, Red Electrica De Espana, a Spanish electricity-network operator, saw its stock price rise as the government looked into privatizing the enterprise, of which one fifth is state-owned. The company saw a 20% rise in profits due to increasing fees. In contrast, Ireland significantly underperformed the broader market during the fourth quarter, posting the worst quarterly return in the developed markets. Two stocks that participated in this slide were Irish Life & Permanent and Irish Retail Financial Group. Both offer mortgages and pension products and declined on concerns of a housing slump. Irish banks have suffered as mortgage growth has slowed and leading margins have deteriorated.

For global sectors, Utilities enjoyed the largest quarterly gains in the fourth quarter of 2007. Worries about increased risk drove investors to seek safer, lower volatility stocks than in previous quarters. This, combined with higher energy prices, led investors to allocate more

assets to utility companies. On the other hand, the Financials sector was the greatest underperformer during the fourth quarter. Earnings for many banks were hurt by the credit crunch as many institutions were forced to make multi billion dollar write-offs for bad loans. In addition, the ongoing housing crisis resulted in fewer mortgage applications than in the past, resulting in lower revenues.

With regard to Arrowstreet's developed markets portfolios, many benefitted from overweight exposure in the German Utilities basket. Our positioning was motivated by positive momentum and attractive value signals. Stocks of German utilities have been benefitting from rising power prices as a result of growing fuel costs. Our largest holding in the basket was electricity producer E.On, which saw its stock rise to its highest levels in more than eight years.

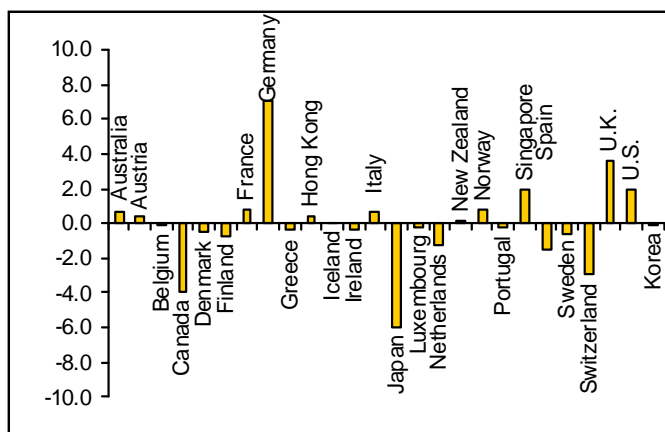
In the U.S. Information Technology basket, many developed markets portfolios were hurt by our holding of Lexmark International, whose shares fell 6.67% in the fourth quarter as the company announced a 47% drop in profit and executives did not provide a timeline for a revival in sales. Printer-maker Lexmark has lost sales to larger rival Hewlett-Packard in recent years. Our overweight position in Lexmark was based on favorable value terms, including smoothed earnings yield and research and development relative to enterprise value.

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

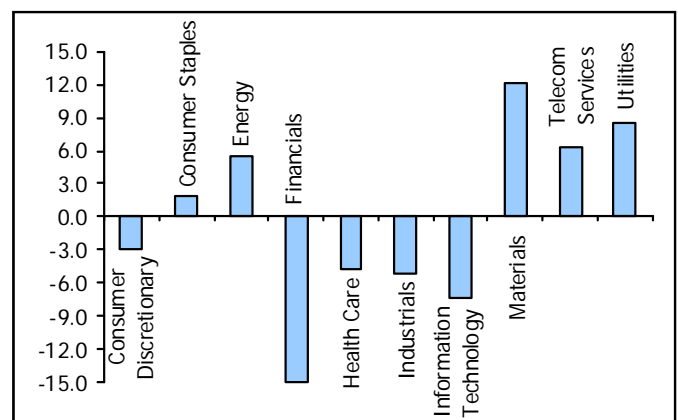
**Dow Chemical (United States Materials) – U.S. Materials** is a basket we expect to outperform the broad market going forward. Our view is based on attractive price momentum as well as macro-economic factors for the United States. Dow Chemical, the largest U.S. chemical maker, is a stock in the basket that we favor based on value terms, including its smoothed earnings-to-price ratio. The company has been able to maintain its earnings growth in the face of rising raw material and energy cost as a result of strong demand for its products in Europe and improved pricing power for its plastics.

**TOTAL (French Energy) – The French Energy basket** is an area we see as presenting attractive opportunities. Our positioning is based mainly on favorable basket-level value terms such as earnings yield and book-to-price. In addition, the basket has positive earnings signals. We even expect Total to outperform its basket peers. Total, one of France's largest energy companies, is investing hundreds of millions of dollars in 2008 in order to tap into new energy resources. At the stock level, Total is attractive based on our model's value terms, particularly dividend yield.

**February 2008 Active Country Weights (%)**  
(Citigroup PMI World)



**February 2008 Active Sector Weights (%)**  
(Citigroup PMI World)



## December 2007 Investment Outlook

### Emerging Markets Equity Strategy

#### Emerging Markets Performance Attribution: 4<sup>th</sup> Quarter 2007

Most of Arrowstreet's emerging markets portfolios were influenced by the following country/sector basket positions:

In Chinese Financials, negative basket-level value terms led us to underweight this basket. Our underweight to Ping An Insurance added value in the fourth quarter. The stock fell 22% (in local currency terms) during the fourth quarter on concern that declines in the overseas stock markets, especially Hong Kong's Hang Sang index, would hurt the returns of Ping An. Within the Brazilian Energy basket, our overweight in Petrobras, which gained 51.5% (in local currency terms) during the fourth quarter, helped performance. Shares were propelled higher on news of the discovery of the Tupi oil field, the second largest field found in the last 20 years which could contain as much as 8 billion barrels of oil. In the Taiwanese Information Technology basket, Arrowstreet's portfolios added value from an underweight position in Hon Hai Precision. The stock lost 18.22% (in local currency terms) in the fourth quarter. Taiwan's biggest electronics exporter fell on concerns over the slowing of the U.S. economy and slowing consumer spending in the wake of falling housing prices.

Detractors from performance included the Korean Materials basket, in which Hanwha Chemical lost 23.40% (in local currency terms) in the fourth quarter thanks in part to raw material costs rising as oil prices climbed to record highs. Our overweight in Hanwha Chemical was driven by positive value terms. The Russian Energy basket was also a detractor of performance. In particular, Gazprom, Russia's natural gas export monopoly, gained 27.74% (in USD) as energy prices rose and as Russian President Vladimir Putin endorsed Gazprom's Chairman Dmitry Medvedev as his successor for the Presidency. We had disliked the stock based on negative earnings terms. Within Brazil Utilities basket, our overweight in Eletrobras lost value as shares fell 10.87% (in local currency terms) after the company sold electricity from the Madeira dam at low prices. This prompted speculation that the Brazilian government was applying pressure to lower long-term energy prices. We liked this stock based on its attractive value terms, particularly book to price ratios.

#### Emerging Markets Overview

Emerging equities posted a modest gain during the fourth quarter of 2007, returning +3.66% (in USD). For the entire year, the asset class recorded an impressive +39.78% gain. In contrast, developed equities posted a loss for the quarter: the MSCI World Index of developed countries fell 2.42%. For the full year, the developed index rose +9.04%. Market volatility at an overall index level remained high amidst continuing global credit and liquidity concerns. The 100-day annualised daily volatility on the MSCI Emerging Market Index measured just below 25% as of the end of the year.

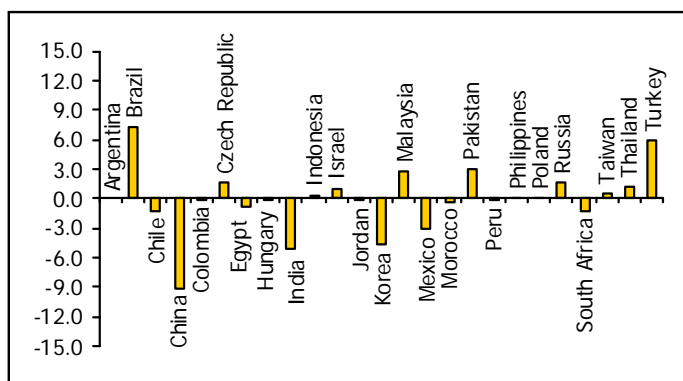
Commodity prices continued their meteoric rise during the fourth quarter. Oil prices gained roughly 17.5%, and the Energy sector was the best-performing group within the emerging universe during the fourth quarter. Gold prices rose approximately 12% during Q4 as investors bid up precious metal prices amidst inflation concerns. The noticeable laggard for both the quarter and the year was the Information Technology sector, which lagged the broad emerging markets index by -10.5% for Q4 and -37.72% for the year.

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

**Lukoil (Russia Energy)** – Lukoil is a stock in the Russia Energy basket that is expected to outperform the broad market. Not only do we favor the overall basket based on attractive price momentum and value measures, but Lukoil in particular is favored because of its own earnings and value terms in excess of the basket average. Lukoil is one of Russia's largest energy companies and has continued to grow at an aggressive pace, while maintaining a conservative financial policy with relatively stable debt metrics.

**Saneamento Basico (Brazilian Utilities)** – We currently see the Brazilian Utilities basket as highly attractive based on value as well as price momentum terms in our indirect model. Within the basket, a favored stock is Saneamento Basico, also known as SABESP, one of the world's largest water and sewage service providers. We find the stock attractive primarily because of its value characteristics, including free cash flow yield measures.

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



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

