ARROWSTREET CAPITAL, L.P.

ARROWSTREET JOURNAL

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What's New at Arrowstreet?

We hope 2009 is off to a good start for you. Like most of you, we hope that global equity markets decide to go in a different direction this year. This edition of the Journal features two topics. The first paper, titled "Can Core Managers Capture the 'Value Premium', and Should They?" discusses how Arrowstreet attempts to capture the value premium without disturbing the style tilt of portfolios. Separately, John Campbell, Ph.D., Partner and Co-Director of Research, discusses the changing risks of nominal bonds and explores the behavior of bonds and bond investors in different inflationary environments.

Q4 2008 Review:

Investment Performance Attribution:
Global equity markets continued their steep declines during the fourth quarter of 2008 as the credit crisis in the financial sector spread to the real economy. All of Arrowstreet's long-only strategies outperformed their benchmarks during the quarter, mainly due to the positive impact of our indirect effects.

Business Growth:
During the fourth quarter, Arrowstreet's firm-wide assets under management decreased to $14.5 billion due to the downturn in global equity markets. This drop in assets came despite Arrowstreet experiencing net asset inflows of $1.3 billion for the full year 2008.

Team Members:
The Arrowstreet team expanded during the third quarter by adding four new employees. In this edition of the Journal, we profile Jeremy Browne, who joined Arrowstreet's business development team last August. Please turn to page 3 of the Journal to learn more about Jeremy.

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

Can Core Managers Capture the "Value Premium," and Should They?

Peter Rathjens, Ph.D.
Partner, Chief Investment Officer, Arrowstreet

In this note, Peter explains how Arrowstreet answers the question of whether it is possible to capture the value premium without disturbing the portfolio's style tilt and seeks to communicate the following three points:

1) In order to measure a style tilt, one must calculate the exposure or beta of a portfolio's return to a style return. This directly measures the risk that (we believe) investors are concerned about. Given an accurate measure of a portfolio's style beta, no other information is needed to measure the portfolio's style tilt;

2) Historical evidence shows that in the case of value, the style beta is only weakly related to the value premium; and

3) Arrowstreet therefore constructs portfolios to earn the value premium without establishing a systematic value tilt. Our long-term results demonstrate this success.

Inflation Bets or Deflation Hedges? The Changing Risks of Nominal Bonds

John Y. Campbell, Partner,
Co-Head of Research, Arrowstreet

Conventional US Treasury bonds make fixed nominal payments whose real value is negatively affected by inflation. Are these bonds risky assets, or do they hedge other risks that investors already bear? The answer depends on the time period, because the covariance between nominal Treasury bond returns and stock returns has moved considerably over time. While it has been slightly positive on average over the last fifty years, it was particularly high in the early 1980's and turned negative in the early 2000's. This behavior reflects changes in the behavior of inflation. When inflationary expectations and the supply side of the economy are stable, as was the case in the early 2000's, inflation is procyclical and bonds move opposite stocks. In such an environment investors hold bonds as hedges against the risk of a deflationary downturn, and their strong demand leads to low risk premia and a typically flat yield curve. This talk will explore the behavior of bonds and bond investors in different inflationary environments including the possible return of "stagflation".

For abstracts of our recent articles, please visit:
http://www.arrowstreetcapital.com/research_whitepaper.htm
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December 2008 Investment Outlook

Global/International Equity Strategy

Developed Markets Overview: 4th Quarter 2008

Global equity markets continued their steep declines during Q4 2008 as the credit crisis in the financial sector unambiguously spread to the real economy. In the US, auto manufacturers lobbied Congress for a bail out. Fearing bankruptcies and surging unemployment, Congress agreed. Commodities prices also continued to decline during the quarter, with the price of crude oil falling close to $30 during December. The expectation of lower demand due to the global recession fueled falling prices from grains to energy to metals.

The Far East outperformed during the quarter after a mostly positive reception to China's 4 trillion Yuan (approximately $585 billion) stimulus package, designed to compensate for slowing global demand. While the US has been the most aggressive in pursuing corporate bail outs and fiscal stimulus, there was some fear that coordinated action in the European region was less likely. Specifically, the Dutch and German finance ministers made comments criticizing stimulus packages that would violate the European Unions' three percent of GDP limits on deficit spending.

At the country level, the UK was the best performing developed country in local currency terms during Q4. The country's outperformance was driven by gains in the Energy, Telecommunications, and Health Care sectors. British Petroleum and Royal Dutch Shell reported record earnings that could help them weather falling oil prices and allow for opportunities to acquire smaller rivals. The worst performing developed country was Austria, whose Austrian Traded Index declined by more than 30% in October and also failed to participate in the recovery in December. Austrian Financials and Energy stocks performed particularly poorly during the quarter. Erste Group Bank saw its shares fall on concerns that the global financial crisis would hurt investments into Eastern Europe.

Among global sectors, Financials was the worst performing sector during the fourth quarter as fears of a global economic slowdown and falling asset prices kept lending constrained. European countries joined the United States in providing support to their large banks in an effort to stabilize the global economy. In particular, the United States continued its efforts to help banks repair balance sheets damaged by the collapse of the mortgage bank securities market. The Telecommunications Services and Utilities sectors suffered the least in the fourth quarter, making them the best performers in developed countries. These defensive sectors faired well as investors sought businesses with long term investment and steady cash flows.

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 Health Care: Overweight positions in UK drugmaker GlaxoSmithKline were motivated mainly by basket-level price momentum signals. The stock fell sharply in early October as stock markets declined globally amid the widening credit crisis. GlaxoSmithKline's stock later rallied as investors sought the relative safety of the company's prescription drug sales, which can endure economic downturn better than most other products. The downturn may also create opportunities for the company to acquire smaller rivals who are hurt by tightening credit conditions.

Japanese Consumer Staples: Many portfolios had an overweight in Seven & I Holdings during the fourth quarter. Our forecasts were driven by strong stock value terms and price momentum signals. This holding company saw profits rise despite the economic downturn, as sales increased and the company expanded into consumer banking.

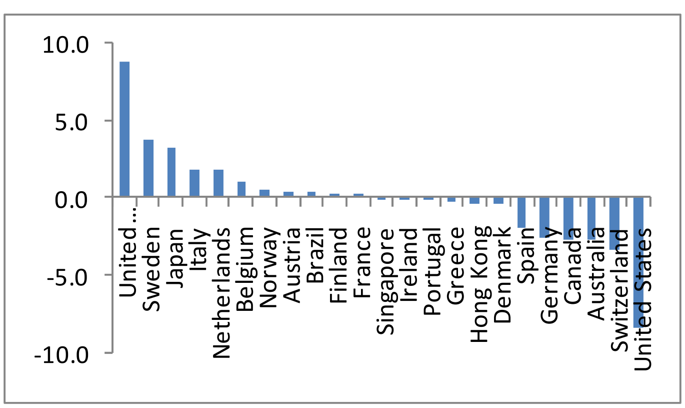
United Kingdom Financials: Portfolio overweight positions in Royal Bank of Scotland Group were motivated by attractive valuation ratios, including price to book and price to sales. Shares, however, fell 72% over the course of the fourth quarter. The bank attempted to raise £20 billion in a rights offering underwritten by the government. But, with minimal interest the UK government will end up owning the majority of the company.

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

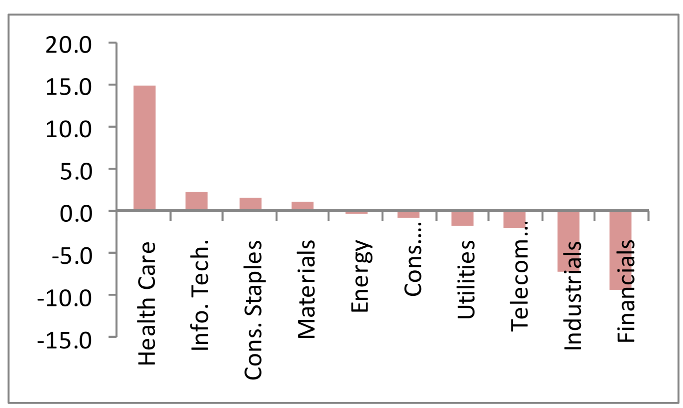
Sanofi-Aventis (France Health Care): Sanofi-Aventis, France's largest drug maker, is poised to make numerous acquisitions in the coming year. Chief Executive Officer Chris Viehbacher cited the four billion Euros in cash the company makes every year as available for new purchases. Sanofi seeks to reverse declining sales and setbacks related to Acomplia and Plavix. The company is favored for cheap price-to-book valuations and strong basket level momentum signals.

LM Ericsson (Sweden Information Technology): Our overweight positioning in LM Ericsson is motivated by positive basket-level momentum signals as well as favorable earnings terms. Despite missing analysts' earnings estimates during the fourth quarter, the company's share price has benefitted from a move to reduce costs and cut jobs. Sony Ericsson, the company's joint venture with Japan's Sony Corp., stated that they expect to return to profitability in the second half of this year.

January 2009 Active Country Weights (%)
(MSCI World)



January 2009 Active Sector Weights (%)
(MSCI World)



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

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Emerging Markets Overview: 4th Quarter 2008

Emerging market equities continued their steep declines during 4Q 2008. The MSCI Emerging Markets index fell 27.6% in USD terms during the period. Meanwhile, market volatility spiked in Q4, as represented by the US VIX index, which is a proxy for overall stock market risk based on options pricing. The inverse correlation between the two indices was starkly apparent during the last four months of 2008.

In terms of county performance, Russia and Pakistan fared the worst among emerging markets. Russian stocks suffered as falling energy prices hurt this oil producing country. Pakistan's troubles started on August 28th, when the Karachi Stock Exchange imposed regulations that kept all Pakistani stocks from falling below August 27th levels. On December 16th the restrictions were removed, causing stocks to trade limit down until prices came in line with world markets, which had fallen by over 30% during that time period. China was the best performing emerging market in the quarter. The country's equities experienced a sharp decline in October, but recovered in the months of November and December as the Chinese government announced plans to spend 4 trillion Yuan on stimulating their domestic economy. Additional measures to help the slowing economy and create jobs included dramatic interest rate cuts and reforms to fuel taxes.

The Energy and Materials sectors led emerging markets down, as fears of a global economic slowdown continued to place downward pressure on commodities consumption. Despite coordinated efforts by OPEC to cut production and provide support for oil prices, demand concerns proved to be a greater driver of returns for the Energy sector. Conversely, the Health Care and Consumer Staples sectors suffered the least in Q4 (and in 2008 as a whole), making them the best performing groups within the emerging universe. These defensive sectors faired well as investors sought businesses whose earnings and cash flows would remain steady during the economic downturn.

Emerging Markets Performance Attribution

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

Russia Energy: Underweight positioning to the Russian Energy basket added value during the fourth quarter. Russian energy stocks such as OAO Gazprom suffered as oil prices fell dramatically amidst the slowing global economy. Additionally, tightening credit conditions threatened to stall the Gazprom's spending plans on new projects. Negative stock level value and earnings terms motivated our underweight positions.

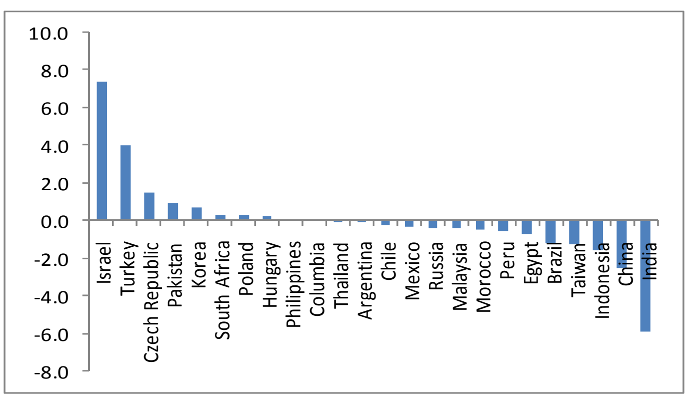
China Industrials: Our positioning in the Chinese Industrials basket had a negative contribution to performance during the fourth quarter of 2008. While we were predominantly underweight the basket, our overweight position in CITIC Pacific Ltd had a negative contribution as the stock plunged 62% over the course of the quarter after the company predicted $2 billion in losses stemming from poor currency bets. Our position was primarily motivated by positive value signals, such as book to price.

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

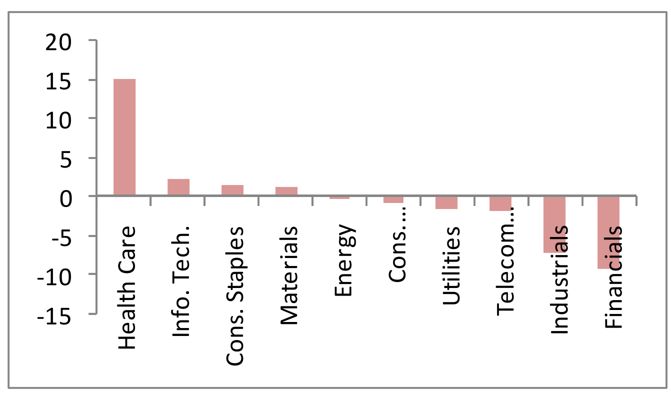
Check Point Software (Israel Information Technology): We continue to overweight Check Point Software, which has displayed attractive basket level valuations, as well as positive macro signals. Check Point, the second largest network security company in the world, posted strong results for the fourth quarter, particularly weighed against the poor performance of the broader economy. Their annual profit increased 25 cents a share in 2008 to $1.50.

Centrais Eletricas Brasileiras S.A. (Eletrobras) (Brazil Utilities): Eletrobras, South America's largest utility company, plans to invest over three billion US dollars during 2009 in power generation and distribution, almost double the amount spent in 2008. The company has shown attractive stock-level valuation metrics, including price-to-book ratio and free cash flow yield.

January 2009 Active Country Weights (%) (MSCI EM Index)

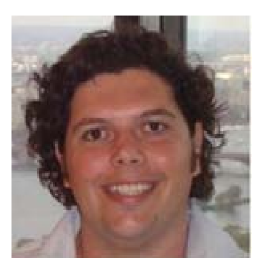


January 2009 Active Sector Weights (%) (MSCI EM Index)



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

Employee Profiles — **Jeremy Browne** – Associate, Business Development



Jeremy is responsible for the sales and marketing of Arrowstreet Capital's investment capabilities in the UK and Europe. Prior to joining Arrowstreet, Jeremy worked for PIMCO, where he concentrated on business development in Australia and New Zealand. Before working for PIMCO, Jeremy worked as a sell side analyst for Citigroup, within their quantitative analysis group.

Jeremy received a Masters in Finance from London Business School. Jeremy also holds an Honours degree in Business and a BA degree in International Studies, which he received from the University of Technology, Sydney.

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