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WELCOME

The turmoil being experienced in the US and UK markets this year is also being felt further afield in the emerging markets, with Asian stock markets also falling dramatically along with the Dow and FTSE. However, as Franklin Templeton’s emerging markets guru Mark Mobius explains in this issue’s interview, emerging markets eventually go their own way and so present alternative investment opportunities now and in the future.

We also take a look at momentum investing and examine if it still remains a viable investment strategy for the UK equity market.

We hope you enjoy this edition of the magazine

Matthew Clements, Editor

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FTSE 100 and USD/JPY
Max Knudsen explains the connection between the UK stock market and the USD/JPY rate and how a stronger yen could weigh on the FTSE 100.

Special Feature
We speak to Lawrence Staden of London hedge fund GLC who discusses trend following, and counter trend following, trading strategies.

Interview
Mark Mobius of Templeton talks emerging markets.

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DOLLAR OUTLOOK: FURTHER WEAKNESS AHEAD FOR EUR/USD AND USD/JPY?

By Camilla Sutton

The multi year run in EUR/USD has been impressive. From the low of 0.8230 in October 2000 to the March high of 1.5904, it has returned 93%, and with the exception of the NZD, it has outperformed all the primary currencies. As Figure 1 highlights, price action has formed a solid uptrend that has been tested several times, increasing its strength. The trend alone is certainly not enough to form a bullish medium term outlook; however it provides a solid base to a bullish stance going forward.

Bullish signals
Most medium term signals underscore the potential for further upside, highlighting that trader psychology continues to be supportive of a push higher in EUR/USD. The 100-day moving average last crossed above the 200-day moving average in April 2006 and since then EUR/USD has climbed 27%. The bullish indicator remains very much intact with the 100-day trading at 1.4769 and the 200-day at 1.4289. The MACD, though well into overbought territory, is comfortably above the signal line, continues to climb higher and has reached a new high in tandem with the currency. All of these are strong signals that price action is committed to pushing EUR to still higher highs. The monthly chart highlights a strong uptrend interrupted by short periods of rest. The particularly positive aspect of the monthly candlestick chart is shown by the dominance of up real bodies, with the close generally quite close to the high. Accordingly, the medium term chart patterns highlight just how strong the underlying support is for EUR.

Warning signs
There are several warning signals that highlight that EUR has gone too far too fast. The RSI has reached well into overbought territory; previous periods when the RSI has reached such extreme levels have been followed by a period of consolidation. However, the long-term trend has remained very much intact. Accordingly, EUR is clearly vulnerable to a short period of retracement before it has the ability to push higher still. In addition, a trend of 45° is considered sustainable, which implies the current short-term trend is far too steep and could be easily broken. Though these are clear warning signals, they highlight the potential for a period of consolidation and not a reversal of the current medium term uptrend.

USD/JPY outlook
As USD/JPY dropped lower and lower over the last twelve months, there were several signals that forewarned the move. The most important was the general chart pattern itself, which...
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highlighted a classic pattern of lower highs and lower lows – a market where the bulls have clearly lost the upper hand. However, our strategy is always to look at multiple studies together to confirm that we are receiving buy or sell signals from several different studies. In addition, knowing whether a security is in a trending or non-trending environment helps to weigh the importance of the signals generated.

As we look out over the next six months it is clear that the recent move has been particularly violent and has thrown most studies well into oversold territory. The RSI has recovered slightly (Figure 2), but still highlights a market that is vulnerable to a short period of consolidation before USD/JPY will have the momentum to drop lower. However, much like EUR/USD, the overall pattern continues to highlight that the market bias is for further USD weakness. Any attempt by the bulls to push USD/JPY significantly higher has failed, as any attempt to slow the decline has also been met with increased selling pressure. The bears are clearly in control of USD/JPY and there are no signals that would highlight an end or even a weakening of this relationship.

**Downward trend in place**

Moving averages highlight that since the crossing of the 100 day below the 200 day in September 2007, USD/JPY has seen significant downside. This relationship continues to hold and hints that there remains significant downward pressure on pricing. The MACD is well into negative territory as it has crossed below the signal line and has reached a new low in tandem with the spot price. All in all momentum is clearly behind USD/JPY and we do not see significant reason to believe that it might be ending, though it would not surprise us to see a rest period where USD/JPY would move back above 100 for a period of time. The ADX, which attempts to judge whether we are in a trending or non-trending environment, clearly highlights a trending environment with a reading of 44. This helps to strengthen many of the signals provided by technical studies as trending environments tend to increase their overall accuracy.

Accordingly, though USD/JPY is vulnerable to a near-term correction, we do not see any signs of bottoming and accordingly think the medium term trend continues to call for further downside.
USD/JPY and equities signals
At the end of August 2007 it became obvious that a major new bear market in USD/JPY was beginning. Due to the equity markets’ dependence on a cheap yen, this meant only one thing for FTSE and the other major world indices - the end of the bull market.

Our call to sell USD/JPY, and by default equities, was based on the observation that for two decades since 1985 there have been 8 major bull and bear swings in long-term USD/JPY sentiment (see Figure 1). Each of these swings has coincided with the currency pair closing above or below the 20-month moving average. In August 2007, USD/JPY closed at 115.77 – the first time prices had closed below the average since 2005.

With the knowledge that in two decades there has been a very strong correlation between the 20-month moving average and every bull and bear market in USD/JPY, and the average duration of trends following the break has been 35 months, we went short USD/JPY and looked for the reversal in equity market sentiment. This came in November in FTSE with the double top (see Figure 2).

USD/JPY and FTSE sentiment
With both USD/JPY and the FTSE off 17% since their sell signals, trend following indicators show no sign of change yet. FTSE statistical comparisons show that the percentage of lows versus highs traded (-32% versus +13%) is not yet at the extremes seen at the last bear market low in 2003. This means that while investor sentiment is bearish, it has been worse. In USD/JPY however, the same comparison of lows versus highs shows that sentiment is almost at the most bearish level reached since the all time low in 1995. In that year the currency reached a low of 79.92 yen to the dollar after a five year bear market. The percentage of lower lows compared to highs traded reached 41%. As of March 2008 that figure is 37%.

MONTHLY USDJPY AND 20 MONTH AVERAGE
Determining FTSE targets
So with USD/JPY nearing historic lows at 79.92 and bearish momentum near extremes, traders and investors will soon be making key decisions on their opinion of fair value. We believe these could dictate the next levels and direction for the FTSE. So far, the FTSE has corrected 38% of the 2003-2007 bull market (3250–6802) and attracted some buying interest. However, if USD/JPY continues deteriorating to test the all time lows at 79.92, then this could see the FTSE move lower towards a 50% correction at 5035 over the next 2 months. After that the target is 4878, derived from the June/October double top price projection.

Evening Star on yearly FTSE charts?
Continued selling beyond is dependant on whether investors sell USD/JPY below 79.92. At this stage our analysis indicates this will happen as the intensity of the bearish trend is showing no signs of slowing. Over the 8 months since August, negative momentum has increased by an average of 27% a month. However, targets for losses in USD/JPY below 79.92 are difficult to identify. FTSE targets are more obvious and would be 4610 - a deeper 62% correction to 2003-2007 bull market. This would also increase the likelihood of FTSE recording an Evening Star on annual charts - a signal for a declining stock market for some years to come.

The yen and possible FTSE recovery
To come back to the central question of whether the FTSE and indeed all major indices are showing any signs of recovery yet, our analysis is that one of the indicators for this could be a bullish signal in USD/JPY to indicate the bear trend is exhausted. Monitoring what the market does as we get close to 79.92 is key; a bullish monthly candle signal such as a Hammer, Engulfing, or Morning star pattern in USD/JPY could be the first indication that negative sentiment is changing. Alternatively, a slowdown in the percentage of lows to highs traded would signal a change in the negative bias.

The follow through signal in FTSE could then be a similar candle pattern, or a close back above the 36-month moving average. This is not so highly correlated with the bull and bear swings as the 20-month average with USD/JPY, but has been a good indicator of FTSE sentiment during the last 25 years trading. Also worth watching is GBP/JPY as this has been closely correlated with the FTSE rally since 2003. GBP/JPY formed a bearish head-and-shoulders reversal over 2007. In addition, January’s trading closed below the 40-month average for the first time in 7 years, an indicator closely correlated with all the bull and bear
In summary, the trigger for a recovery in FTSE could be from a range of sources. However, bearish signals in USD/JPY seven months ago gave us a valuable edge in identifying the turn around in stock market sentiment. We think it’s worth monitoring USD/JPY for the recovery signal.

Max Knudsen is managing director of PIA–FIRST. Previously head of Fixed Income Technical Analysis at UBS and Head of cross market Technical Analysis at Dresdner Kleinwort, Max and his partners now provide independent trading strategies in FX, Equities, and Interest Rates on daily, weekly, and quarterly time horizons. www.pia-first.com
BEST PERFORMING ASSETS IN 2007: 
SOYBEANS LEAD THE WAY

The recent asset markets survey conducted annually by Clerical Medical has reported that commodities were the best performing asset class in 2007, enjoying an overall return of 20.6%. This was the asset class’s best year since 2000. Of all the commodities, soybeans saw the strongest returns with an astounding 77.5% rise on the year. This was followed by precious metals which rose 26.4% overall with platinum leading the way at 37.2%.

The report says that the rise in soybean prices was boosted largely by the decision of US farmers to switch crop production towards biofuels, thereby constraining supply. Because of this trend, other agriculturals also saw impressive rises. Soft red wheat recorded the second highest price rise (69.2%), followed by hard wheat (68.3%). Wheat prices were also helped by a drought in Australia that limited supply.

UK stocks outperform
However, most assets except cash and commodities underperformed their long term average last year. UK equities rose only 5.3%, being outperformed by residential property at 10.7%. Bonds rose only 3.3%, underperforming cash at 6.0%. Indeed, stocks (domestic and international) had their worst year in five years with commercial property (domestic and international) having its worst year in fifteen. Overall, UK shares marginally outperformed international shares last year with a 5.3% return against 5.2%. This was the fifth consecutive year UK shares enjoyed superior returns to international stocks.

Metals picture mixed
Precious metals had another good year with platinum the star performer followed by gold up 31.8%. For gold, this was the metal’s best return for 28 years. Not all metals prices rose however; zinc was the worst performing of all commodities falling 44.9%, with aluminium down 17.3%. These price falls have been attributed to increased supply from mining following price rises in previous years.
GLC Ltd is a London based hedge fund set up in 1992 by Lawrence Staden a former gilt market maker at Bankers Trust. With around $1 billion under management, the firm enjoyed returns in excess of 20% last year on its largest fund, the GLC Direction Programme, and back in 2001 was named best statistical arbitrage fund by Eurohedge. We spoke to Lawrence at his Covent Garden offices about his funds and the trend following and counter-trend following strategies they employ.

Can you tell us a bit about the funds you manage at GLC?

We run four funds: our Global Macro, the Behavioural Trend Programme, the GLC Directional Programme, and the Gestalt Europe which is a statistical arbitrage fund. As I will explain, the Directional and Behavioural funds use a trend following and counter trend following strategy that is model based.

How many traders do you have?

We have six traders at GLC altogether who are involved in a wide range of markets including equities, FX and bonds. We have also recently been joined by Stephen Bell from Deutsche Bank who is running the Global Macro fund.

Can you explain how the models you use for your funds work?

They are mechanical in the sense that we use the models to determine what and how much to buy and sell on a daily basis, but there is also a discretionary element involved before we actually execute a trade. The models are designed to identify trend following and counter trend following buy and sell opportunities. In using your trend following models do you find there are some markets that tend to trend more than others?

Different markets behave in different ways. For example, when I was a bond market maker at Bankers Trust I was adding liquidity to the market so when it went up, I would usually want to sell it. This was a countertrend strategy...
“I HAVE SEEN NO EVIDENCE THAT IDENTIFYING MARKETS THAT HAVE TRENDED MORE IN THE PAST WILL PRODUCE BETTER RETURNS FROM A TREND FOLLOWING STRATEGY IN THE FUTURE”

Lawrence Staden
that worked. However, I noticed that the FX desk would very often have the total opposite approach. If USD/D-Mark went up then they would tend to buy it which was in essence a trend following approach. I tried to understand why the two approaches were so different for the two markets. I realised that the difference came down to liquidity. We were adding liquidity to a relatively illiquid market so when a buy order came into the market prices would be pushed up but they would then tend to mean revert. But with very liquid markets such as FX there is a greater tendency to trend.

I see the market as being divided into investors and speculators. Investors tend not to trade very much but when they do it has a significant impact and this generates an investor driven momentum which in turn produces a trend. On the other hand, speculators trade more frequently and over the shorter term. When investors stop buying speculators may do nothing if the market goes up but if the market goes down they will sell which tends to amplify reversals. This means that investors are basically trend followers and speculators are counter trending.

**How do you use this observation in your trading?**

One of the black boxes we have here sifts through tick data and looks to determine if at any one time the market is being driven by investors or speculators. If it determines that the market is investor driven then we trend follow. If its speculators, we counter trend and if the black box can't tell then we do nothing. So in effect, the directional models flip between trend following and counter trending. The Behavioural Trend fund goes out to 20 days and for this longer time period you can't really counter trend. This fund is really only trend following. We have made good money out of being short the dollar, short equities and into commodities but around mid March we realised that there are now a lot of speculators about and the black box effectively switched itself off. We are up about 4% so far this year on this strategy.

Citigroup has done a lot of research into identifying which FX rates have the greatest tendency to trend and found USD/JPY tended to exhibit strong trending characteristics. Why do you think, in FX at least, some markets trend more than others?

What has made a big difference in some FX markets is intervention by central banks. A good example is the India rupee. The central bank will intervene to keep the rupee lower than it might otherwise be. If you’re a trend follower and the dollar/rupee falls then you know that at some point the Bank will come up and attempt to halt the decline. What has changed for many FX markets over the past few years is that central banks tend to intervene much less then they used to. Having said that there is some evidence intervention may recently have seen something of a revival - just look at the Bank of China. Greater intervention activity probably explains why emerging markets currencies trend more over longer term horizons.

I believe that all markets trend at some point if there is sufficient liquidity and in FX there will also be some markets that trend more than others. However, I have seen no evidence that identifying markets that have trended more in the past will produce better returns from a trend following strategy in the future.

Did the speculators account for the fall in oil and gold we saw recently?

An absence of investor actively will cause quite sharp reversals. If everyone is long gold and general noise or volatility in the market pushes price down 1% then people begin to stop themselves out. This produces a domino effect which is recognised by the speculators and exploited leading to a sharp, if temporary, downward move. This is another way to make money in a bull market. In the directional programme we try to capture those reversals.

With regards to the automation of your funds, what is your approach to backtesting a model?

You need an awful lot of equipment and tick data in order to work out what is going on. I have seen a lot of people who come here with some fantastic model they have devised and ask to be hired. The problem with this is that if you test 1000 models taken at random then the best performing one will always look spectacular. Unless you know exactly how the model was devised then you have no way of telling what the model is worth. An equity chart showing impressive returns isn't enough. When it comes to backtesting, you can't be too careful. I think the important point is that models have to be much more robust than they needed to be a few years ago. This is because with so many hedge funds out there, it's a much more competitive environment.

Does this account for the half-life or decay in performance that most models seem to exhibit?

Absolutely. First of all, models never work as well as you expect. If you have a good performing model then, depending on the market and your time scales, a tendency to mean reversion may reduce the models performance. Your lesser performing models may then be expected to perform better in the future although this tends not to happen.

If you have found something that works then the chances are that someone else has discovered the same thing. These models tend to decay quickly and if this begins to happen then you have no choice but to abandon it. Models can't then be tweaked to improve their outcome.
Are there any specific technical indicators you use in your models?

I wouldn’t describe the models themselves as being technically based although that depends on your definition of TA. Where we certainly use TA is in our execution of trades. We’ll look at intra-day chart points, highs and lows etc.

It goes without saying that if you’re trend following then knowing when to exit a position is pretty crucial. How do you use TA for this?

There are two ways we can get out of a trade: if you are trend following then we may decide that the trend is now longer valid. As with gold recently, it looked as though the market was speculator driven so would reverse. We really use TA when it comes to executing a trade and so look for value added here. For example, instead of executing a trade automatically I prefer to rely on the experience of my traders and look to exceed the expected return of the model, maybe by as much as 5%.

Can you give me an example of how TA might give you this edge?

It really comes down to identifying the key levels. There are a lot of barrier options in the FX markets so suppose our model is saying buy and the market is trading up to the level where I know there is a barrier. When those barriers get hit, people who thought they were short of the market become long of the market. Consequently, they tend to trade through the level, knock all of barriers and they then sell, so you tend to get quick sharp reversals there. So we are not going to buy at a level where we think it will trade up a bit and then crash off. This I guess is a form of technical analysis in that it involves acting on pre-determined levels, a form of support and resistance, although this doesn’t involve using any technical indicators as such.

Alternately, if our models say buy but the technical signals at that particular moment are very adverse then we might think again. If it involves levels then we will wait until the market moves and takes out the stops before we go in.

Can you explain something of your interest in behavioural finance and how you use it?

I am very interested in the subject but for none of our funds have we taken a behavioural finance idea and applied it to a model. I think the strategy that probably exhibits the strongest behavioural elements is probably merger arbitrage because people are so averse to taking losses. You can come up with a behavioural explanation of why markets trend and so forth but in practice this doesn’t really help you much.

Nevertheless, looking at how the markets work in psychological terms really helps what we do. You can’t take a behav-
ial finance idea and then model it to trade but you can use it to understand how or why your models work which is valuable. A major problem with BF is that most of the research and ideas are very much in the public domain which means they are very unlikely to work even if you could model them. This applies to most strategies, or at least short term strategies.

TA: Finally, how do you see the markets at the moment?
LS: Well as far as our funds are concerned, volatility if what we want so current conditions are quite good for us. As long as things carry on as they have been I’m happy.

“You can’t take a Behavioural Finance idea and then model it to trade but you can use it to understand how or why your models work”
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US stock cycles
EVIDENCE FOR A LONG TERM SECULAR BEAR MARKET
By Ed Easterling

The next few years are quite likely to continue the path that began eight years ago — a secular bear market for U.S. stocks. To understand that path, it is first necessary to appreciate the overall environment and the current fundamental conditions impacting the stock market. With an appreciation for the environment, we can adjust investment portfolios and strategies to best achieve success.

The long-term average return from the stock market is close to 10%; it is based upon series that start more than eighty years ago. The long-term nature of those series provides a confident level of credibility, yet it also represents a vulnerability — they start when the overall valuation level, as measured by the price/earnings ratio (“P/E”), was close to 10. Investment periods that start when valuation levels are low have much higher returns — a steeper trajectory — than those that start at relatively high P/Es.

Why? There are only three components to stock market returns: earnings growth, valuation-level changes (i.e. the change in P/E), and dividend yields. A discussion of these three components will confirm that a reasonable assumption for future stock market returns is less than two-thirds of the long-term average.

Earnings growth
Before we look forward, let’s look historically for insights. Let’s use the certainty of history to explain the contribution of each of the components to the long-term average of 10%. Over the past eighty years or so, earnings growth contributed just over 5% to the long-term average. The increase in P/Es from near 10 to almost 20 today provided just under 1% to the long-term average. Finally, partially related to the starting and average P/E ratios over time, the dividend yield contributed more than 4% to the long-term average. Combined together, the compounded total return (before transaction costs, fees, expenses, etc.) averaged slightly above 10%.

So looking forward, from conditions that exist at the starting point in early 2008, what are reasonable assumptions for the three factors over the next few decades? To assist in the discussion, concepts and data from the book Unexpected Returns: Understanding Secular Stock Market Cycles will be referenced.

First and foremost, we can eliminate the impact of significantly rising P/Es — the level of valuation cannot be reasonably expected to double from current levels as it did in the long-term average. Given that we are near historical highs for the P/E ratio (excluding the two bubbles during the past century), any further material increase in P/Es is unrealistic. Past bull markets peaked with P/Es in the low to mid 20s; there are financial reasons that P/E ratios cannot be sustained above the mid-20s. Therefore, if P/Es can at least be maintained at currently high levels, the best-case long-term return is closer to 9%, the long-term average of approximately 10% less the historical impact of P/E expansion.

The second component, earnings growth, is closely tied to economic growth. Over the past decades and century earnings growth is closely related to Gross Domestic Product (“GDP”). GDP growth is comprised of real growth in GDP plus inflation. Today, inflation is being tightly controlled by the US Fed and is running below the historical average. As a result, future nominal earnings would be expected to grow at a slower rate than the historical past. Although it may not be much of a change, a 1% slower nominal growth rate shaves almost another 1% off of the potential return provided by earnings growth. Please keep in mind that if inflation does increase, the resulting decline in P/E ratios will more than offset the benefit to earnings growth. So with the more optimistic low-inflation scenario, we’re down to a best-case long-term return closer to 8%.

Dividend yields
The final component, dividend yield, is directly and mathematically related to the starting level of valuation — the P/E ratio. In 1926, when the P/E ratio was close to 10, the dividend yield was approximately 5%. At the current P/E near 20, the normalized dividend yield drops to near 2.5%. The dividend policy and payout rates for companies do not change as a result of the level
of its P/E ratio. A company that generates $2 per share will typically pay out $1 per share in dividends regardless of whether its stock price is $20 or $40 (i.e. 10x P/E or 20x P/E). Yet the dividend yield when the P/E is 10 will be 5% ($1 dividend on a $20 price), while the dividend yield at a P/E of 20 will be 2.5% ($2 dividend on a $40 price). The effect of today’s valuation levels, P/E near 20, reduces the expected yield by more than 2% versus the historical dividend yield. As a result, our best-case future long-term return approaches 6%.

Market cycles
Of our three components in the future, two of them — earnings growth and dividend yield — are good soldiers that will provide a fairly predictable contribution to total return near 6%. The third component — changes in the P/E ratio — will determine whether realized returns are near 6% or are much less. The trend in P/E ratios significantly impacts multi-year returns. During periods when the P/E increases, earnings growth is multiplied; whereas, periods of P/E declines mitigate EPS growth. The result is periods known as secular stock market cycles. From currently high levels, any decline in P/Es will reduce long-term returns below 6%. The magnitude of the shortfall will depend upon whether the decline stops at the historically-average level or further declines to typical secular market lows.

But, even though 6% returns and a low-slope trajectory sound sleepy, secular bear markets are certainly not boring. As reflected in the lower section of Figure 1, annual stock market changes have exceeded 16% (up or down) about half the time over the past century. For the secular bear periods, when P/Es started above average, the frequency is somewhat weighted toward downside volatility.

Diversification
Therefore, although we may hope for a mellow stroll, the path is wide to nowhere for the stock market during secular bear markets. This is similar to

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**Figure 1. Historical Volatility**

**Figure 2. The Last Secular Bear**
the last secular bear market and the secular bears that preceded it. The most recent secular bear was a dramatic course of multi-year rallies punctuated by declines that left investors frustrated after almost two decades. Therein lies the most powerful empowerment of recognizing the current environment — the ability to invest with diversification for returns unrelated to the market.

Using the most recent secular bear market as a representative example, Figure 2 presents the treacherous journey of unsatisfying returns that compromised investors during the last period of initially high and progressively declining P/Es.

The discussion for the upcoming course of the stock market is complete. The longer-term trajectory is driven by the fundamental components for future returns — all three parts indicate below average returns in the future. Earnings growth will be lower than average, unless inflation increases. Dividend yields will be well below average as a result of current valuation levels. P/Es cannot contribute their past benefits due to their currently high levels. Finally, a decrease in P/Es, due to higher inflation or other factors, would offset the resulting modest gains in earnings growth. In the aggregate, investors can expect that the long-term return, based upon 2008 as the starting point, will be less than two-thirds of the historical average. Once P/Es retreat to average levels, future long-term returns from that point will increase. From now to then, investors would suffer the effects of a P/E decline. And only when the starting point for P/Es is again near 10 can investors expect that the historical long-term average return will again be possible.

When the overall environment is overlaid with annual volatility, the result is a hair-raising course from year-to-year that ultimately delivers a frustrating ride to nowhere. As a result of the current environment and conditions, investors have two alternatives: reasonable expectations or blind hope. Unfortunately for investors, historically average returns and calm conditions are not in the cards.

Ed Easterling is the President and founder of Crestmont Holdings, L.L.C., an investment management and research firm that manages a hedge fund portfolio and publishes research on the financial markets at www.CrestmontResearch.com. In addition, he is a member of the adjunct faculty at SMU’s Cox School of Business and teaches the course on hedge fund investment management for MBA students. Mr. Easterling is the author of Unexpected Returns: Understanding Secular Stock Market Cycles. Copyright 2008, Crestmont Research
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LoBagola Analysis

Watching elephants for clues to future price movements

In a recent feature, the New Yorker magazine profiled legendary hedge fund manager, Victor Niederhoffer. The article included mention of Niederhoffer’s LoBagola analysis, a form of technical analysis that looks to characterise the way prices retrace after a sharp and unpredictable move. In this article, we take a brief look at LoBagola analysis, its origins, and how Niederhoffer uses it in his trading.

Victor Niederhoffer

Victor Niederhoffer is an investor and money manager who made his name in the 1980’s on Wall Street and after spending 10 years trading with George Soros. He went on to set up Niederhoffer Investments, a hedge fund and proprietary trading firm where he generated annual returns of up to 35%, and was ranked the No. 1 hedge fund manager in the world by MAR in 1996.

Losses incurred from the Thai stock market crash in 1997 closed the fund although Niederhoffer made a come back, setting up his own proprietary trading firm in 1998 and managing client money again in 2002. His Connecticut based firm, Manchester Trading, specialises in the short term trading of a wide range of markets including currencies, stocks, bonds and futures. In the 1970s he developed an automated system for detecting price patterns which he still employs today and LoBagola analysis forms part of his theory about how market prices move over the short term.

Now into his 60’s, Niederhoffer is also famous for two bestselling books, “The Education of a Speculator” and “Practical Speculation” (both by Wiley) in which he explains his trading and investment philosophy. He now runs a website and blog, dailyspeculations.com which contains his, and others, thoughts on the markets.

The LoBagola story

The name “LoBagola” comes from the story of a young African Jew who in the 1920s stowed away on a British ship off the coast of west Africa and ended up in Glasgow and spending time in England before returning to Africa. He went on to write a book of his experiences, ‘LoBagola: An African Savage’s Own Story’ which was published in 1930. In the book, LoBagola describes how his local villagers at home devised a method of capturing elephants for their ivory. Occasionally a herd of 100 or so elephants would go on the rampage creating a path of crushed and flattened vegetation. Once the dust had settled after a few days, the elephants would very often return along the same path they came from. This allowed the villagers to know where to dig camouflaged pits in order to capture the elephants.

This story is used as a metaphor for market behaviour by Niederhoffer, as he believes a marauding market price behaves exactly like LoBagola’s elephants - following a sharp market move, prices often retrace along a similar path.

It has been said that LoBagola was in fact a con man who, Marx-like, spent hours in the British Library writing his “memoirs” in an attempt to cash in on the fad at the time for exotic colonial tales. This, according to Niederhoffer, only adds to the metaphor as many sharp market moves are essentially “false” in nature in that prices often revert back quickly to their previous level.
LoBagola example

Figure 1 shows a chart of IBM from 1999 and 2000. At the height of the dotcom boom the price of this stock jumped 60% in just 3 months, but then retraced over a similar period and in a similar pattern to its rally, to close near its starting price. This provides an example of the symmetry that is characteristic of a LoBagola after the prices have reached a (often unprecedented) market high or low.

The strategy from Figure 1 is clear. Once it looks like the price has peaked at around 135 and is reversing, a short position is taken in anticipation of a fast symmetrical downward move to 85, or thereabouts. While the move doesn’t necessarily imply a 100% retracement, this is often the case.

Niederhoffer describes LoBagola analysis as identifying predictable price movements, especially in relation to market bubbles. As he says, “…no one has been able to come up with… [an example of] a bubble that didn’t break completely.” In essence this means that prices go on the rampage in a bubble or sharp bear market, and what becomes predictable under those circumstances is the nature of the price reversal that will inevitably happen.

“NO ONE HAS BEEN ABLE TO COME UP WITH… [AN EXAMPLE OF] A BUBBLE THAT DIDN’T BREAK COMPLETELY”

- VICTOR NIEDERHOFFER

Figure 1.
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momentum investing

A study of strategies and returns for UK stocks
Fund managers and hedge funds continue to profit from momentum investing despite traditional portfolio theory saying that such opportunities shouldn’t exist. If markets are efficient, so the theory goes, then excess returns over a buy-and-hold portfolio should not be achievable using such a strategy. In this article, we look at the London Business School’s (LBS) recent survey of momentum investing which examines past momentum returns in the UK stock market and the strategies which have generated the highest returns.

**Momentum and portfolio theory**

US economist Eugene Fama, famous for his work on portfolio theory and asset pricing, described momentum investing as the premier anomaly amongst reported investment returns. Traditional asset pricing theory is still alive and well within the academic community but it has struggled to explain what Elroy Dimson, BGI Professor of Investment Management at the LBS and co-author of the survey calls, “pricing anomalies” in the stock market that started to appear during the 1980s. These include short term price movements, seasonal regularities and perhaps most significantly, the tendency of long term underperforming stocks to rebound and better performing stocks to retreat.

Fama famously went on to explain such anomalies as a reward, or premium, for risk leading to securities that are over priced relative to their underlying fundamentals. Another theory states that some investors suffer from market misperceptions - a behavioural finance explanation. Fischer Black of Black-Scholes fame explained such anomalies by saying that they occur purely by chance and are therefore random in nature. Errors in data mining mean these random patterns are often erroneously interpreted as having significance, a problem that has only increased with the onset of computer analysis.

Two academics, Jegadeesh and Titman** found that a simple momentum strategy of buying stocks that did well last year and selling losing stocks did produce returns of around 12% per annum for non-US markets. However, this worked only as a long only strategy. In other words shorting underperforming stocks did not produce the same results. They found that momentum worked in 12 European markets between 1978 and 1995, in seven out of eight Asian markets from 1975-1997 and in 40 international markets overall up to 2000. Returns also tended to be greater in developed rather than emerging markets.

**Momentum strategies**

Momentum investing is a long/short strategy that involves simply buying winning stocks and selling the losers. It is essentially a trend following strategy but one that involves stock ranking and selection. To a technically based investor, this is nothing new. Identifying which stocks may be trending is the basis for much technical trading. Momentum, on the other hand, uses quantitatively-based relative strength analysis rather than a technical approach to identify these stocks.

In their survey the LBS analysed the UK stock market from 1956 through to 2007 using several variations of a traditional momentum strategy. They looked to establish to what extent momentum worked as an investment strategy and what are the best and most effective approaches to momentum investing. The LBS survey also asks; if momentum is such an obvious and popular strategy, why do profit opportunities still exist?

The LBS tested the profitability of momentum investing using the following strategy:

- A winning portfolio comprises the top X% of stocks (X=10, 20 or 30)
- A losing portfolio comprises the bottom X% of stocks

The simple strategy (12/1/1) is to rank stocks over the past 12 months and go long the winning portfolio and short the losing portfolio for a period of one month. A one month skip period is recommended between the ranking and holding periods to avoid, among other effects, a bid-ask bounce. The portfolios were then rebalanced on a monthly basis.

The LBS tested momentum in the UK market using companies listed on the London Share Price Database for the 108 years of data from 1900 to 2007, and from the London Share Price Database (LSPD) which runs from 1956 and contains information on 9000 companies traded on the LSE. We look at the results for the period 1956-2007.

The study also looked at 17 global stocks over the past 33 years with US data going back to 1926.

“...active managers, who ignore the momentum effect, do so at their peril”

London Business School, Global Investment Returns Yearbook 2008
Momentum strategy results

In practice, equal weighted returns are more frequently used where the same weights are given to small and large companies in the portfolio.

Although the return of 12% for the equal weighted returns is close to the market return of 13.52%, the long/short strategy is market neutral and represents a zero net investment. Because of this, a more appropriate benchmark would be one that offers little premium for equity market risk and none for the time value of money. With these considerations, the return of 12% represents a “substantial level of risk-adjusted performance” according to the LBS.

A strategy for the FTSE 100

The previous equally weighted test was strongly influenced by small volatile stocks. To avoid these illiquid stocks, the LBS also tested the momentum strategy for the FTSE 100.

Using just the FTSE 100 also has the benefit that with large stocks, transaction costs are lower and shorting is easier and cheaper. Table 3 shows results using not only different X% values (ranking criteria) but also different ranking and holding periods.

The returns from the FTSE are less than those for the whole UK market although the return of 6.95% is a zero investment portfolio so represents the alpha of the strategy. The LBS describe this return as, “by any account large” and say that it is more easily to obtain than for the UK market as a whole because transaction costs are lower, and shorting easier, for FTSE 100 stocks.

Changing strategy parameters

The two previous examples used a 12/1/1 strategy; a 12 month ranking period followed buy one month skip and holding periods. Stocks were ranked using X=20 where the top and bottom 20% of stocks are selected. How do returns differ when these parameters are changed?

The survey also looked at a 6/1/6 strategy and varied the X value to include X=10 and X=30. Table 4 lists the results for these strategies for all UK stocks and for FTSE 100 companies from 1956-2007, and includes both value and equal weighted returns.
Techniques

As a general rule, it can be seen that momentum returns decrease as the company size increases. Also, returns are higher when stock ranking criteria is stricter i.e. 10/90 compared with 30/70. Moreover, the 12/1/1 strategy shows higher returns than the 6/1/6 strategy.

The LBS also observed other characteristics of momentum returns:

- When equities perform well relative to government bonds, momentum profitability is less.
- When small caps outperform large caps, momentum is reduced
- When value stocks outperform growth stocks, momentum is reduced

Table 4. Returns using alternative parameters (%)

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Weighting</th>
<th>Portfolio</th>
<th>30/70</th>
<th>20/80</th>
<th>10/90</th>
<th>30/70</th>
<th>20/80</th>
<th>10/90</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/1/1</td>
<td>Value</td>
<td>Winners</td>
<td>17.87</td>
<td>18.29</td>
<td>22.45</td>
<td>15.43</td>
<td>16.50</td>
<td>17.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Losers</td>
<td>7.60</td>
<td>6.79</td>
<td>3.11</td>
<td>9.35</td>
<td>8.92</td>
<td>8.60</td>
</tr>
<tr>
<td></td>
<td>WML</td>
<td></td>
<td>9.54</td>
<td>10.77</td>
<td>18.76</td>
<td>5.56</td>
<td>6.95</td>
<td>7.92</td>
</tr>
<tr>
<td></td>
<td>Equal</td>
<td>Winners</td>
<td>24.07</td>
<td>25.63</td>
<td>28.09</td>
<td>16.45</td>
<td>17.38</td>
<td>18.57</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Losers</td>
<td>13.08</td>
<td>12.17</td>
<td>10.67</td>
<td>10.07</td>
<td>9.10</td>
<td>8.04</td>
</tr>
<tr>
<td></td>
<td>WML</td>
<td></td>
<td>9.71</td>
<td>12.00</td>
<td>15.74</td>
<td>5.80</td>
<td>7.59</td>
<td>9.75</td>
</tr>
<tr>
<td>6/1/6</td>
<td>Value</td>
<td>Winners</td>
<td>16.94</td>
<td>18.32</td>
<td>19.04</td>
<td>14.66</td>
<td>15.83</td>
<td>16.64</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Losers</td>
<td>10.36</td>
<td>8.73</td>
<td>4.52</td>
<td>11.81</td>
<td>10.55</td>
<td>8.69</td>
</tr>
<tr>
<td></td>
<td>WML</td>
<td></td>
<td>5.96</td>
<td>8.82</td>
<td>13.90</td>
<td>2.55</td>
<td>4.78</td>
<td>7.32</td>
</tr>
<tr>
<td></td>
<td>Equal</td>
<td>Winners</td>
<td>23.03</td>
<td>23.98</td>
<td>26.27</td>
<td>15.29</td>
<td>15.85</td>
<td>16.70</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Losers</td>
<td>13.25</td>
<td>11.64</td>
<td>8.47</td>
<td>11.00</td>
<td>10.45</td>
<td>8.18</td>
</tr>
<tr>
<td></td>
<td>WML</td>
<td></td>
<td>8.64</td>
<td>11.05</td>
<td>16.41</td>
<td>3.86</td>
<td>4.89</td>
<td>7.88</td>
</tr>
</tbody>
</table>

As a general rule, it can be seen that momentum returns decrease as the company size increases. Also, returns are higher when stock ranking criteria is stricter i.e. 10/90 compared with 30/70. Moreover, the 12/1/1 strategy shows higher returns than the 6/1/6 strategy.

The LBS also observed other characteristics of momentum returns:

- When equities perform well relative to government bonds, momentum profitability is less.
- When small caps outperform large caps, momentum is reduced
- When value stocks outperform growth stocks, momentum is reduced

So, is momentum still a source of alpha in stock investing?

The LBS state that as far as the UK stock market is concerned, momentum has been a feature of the stock market going back to 1900. On this point the research of Elroy Dimson et al contradicts the outcomes from previous academic studies. However, momentum returns are subject to great volatility, particularly since 1999, and the most impressive momentum returns exist over the long term by testing back to 1900. Nevertheless, the LBS survey notes, “active managers, who ignore the momentum effect, do so at their peril.”
Current winners and losers

If a large proportion of the returns to be had from momentum come from those stocks with the most extreme relative strength i.e. the very best or worst performers, which sectors would be the best to buy and sell?

The LBS ranked the best winners and losers among the FTSE 100 by company in the 12 months to February 2008. Their results are listed in Table 5. Not surprisingly, mining stocks rank highly amongst the winners and banking and property stocks are among the losers.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Winners</th>
<th>Return %</th>
<th>Losers</th>
<th>Return %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rio Tinto</td>
<td>90</td>
<td>Taylor Wimpey</td>
<td>-48</td>
</tr>
<tr>
<td>2</td>
<td>BG Group</td>
<td>69</td>
<td>Wolseley</td>
<td>-40</td>
</tr>
<tr>
<td>3</td>
<td>Xstrata</td>
<td>68</td>
<td>Yell Group</td>
<td>-39</td>
</tr>
<tr>
<td>4</td>
<td>BHP Billiton</td>
<td>64</td>
<td>Perismon</td>
<td>-37</td>
</tr>
<tr>
<td>5</td>
<td>Vedanta Resources</td>
<td>64</td>
<td>RBS</td>
<td>-36</td>
</tr>
<tr>
<td>6</td>
<td>Tullow Oil</td>
<td>56</td>
<td>Intercontinental Hotels</td>
<td>-33</td>
</tr>
<tr>
<td>7</td>
<td>Cairn Energy</td>
<td>56</td>
<td>BA</td>
<td>-33</td>
</tr>
<tr>
<td>8</td>
<td>AMEC</td>
<td>54</td>
<td>Kingfisher</td>
<td>-32</td>
</tr>
<tr>
<td>9</td>
<td>Antofagasta</td>
<td>52</td>
<td>Alliance and Leicester</td>
<td>-33</td>
</tr>
<tr>
<td>10</td>
<td>Scottish and Newcastle</td>
<td>52</td>
<td>HBOS</td>
<td>-31</td>
</tr>
<tr>
<td>11</td>
<td>Reuters</td>
<td>49</td>
<td>British Land</td>
<td>-31</td>
</tr>
<tr>
<td>12</td>
<td>ICAP</td>
<td>46</td>
<td>Barclays</td>
<td>-29</td>
</tr>
<tr>
<td>13</td>
<td>LSE Group</td>
<td>37</td>
<td>Friends Provident</td>
<td>-24</td>
</tr>
<tr>
<td>14</td>
<td>Johnson Matthey</td>
<td>33</td>
<td>Marks and Spencer</td>
<td>-28</td>
</tr>
<tr>
<td>15</td>
<td>FirstGroup</td>
<td>29</td>
<td>Home Retail Group</td>
<td>-25</td>
</tr>
<tr>
<td>16</td>
<td>Kazakhmys</td>
<td>26</td>
<td>ITV</td>
<td>-25</td>
</tr>
<tr>
<td>17</td>
<td>Vodafone</td>
<td>26</td>
<td>Rentokil Initial</td>
<td>-25</td>
</tr>
<tr>
<td>18</td>
<td>Thomas Cook</td>
<td>26</td>
<td>Enterprise Inns</td>
<td>-24</td>
</tr>
<tr>
<td>19</td>
<td>British Energy</td>
<td>25</td>
<td>Next</td>
<td>-21</td>
</tr>
<tr>
<td>20</td>
<td>Unuilever</td>
<td>25</td>
<td>Old Mutual</td>
<td>-16</td>
</tr>
</tbody>
</table>

Table 5. FTSE 100 winners and losers ranked in the 12 months to February 2008

The LBS survey concludes by stating that the returns obtainable from momentum remain something of a puzzle, especially as profiting from selling poor performing stocks does not fit well the traditional outperformance of small cap and value stocks in the UK market. Moreover, momentum investing may be hampered by a recent increase in the volatility of returns along with high transaction and shorting costs. Therefore, momentum investing is best suited to investors who have exposure to low cost trading. Impressive returns are out there, but they are hard to exploit.

*Elroy Dimson, Paul Marsh and Mike Staunton, London Business School - Global Investment Returns YearBook 2008, published by ABN Amro
**Narasimhan Jegadeesh, Emory University, Atlanta and Sheridan Titman, University of Texas
Our thanks to Paul Marsh of the London Business School for his assistance in publishing this article.
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Mark Mobius

Dr. Mark Mobius is managing director at Templeton Asset Management in the US and specializes in managing the firm’s flagship emerging market funds and equity research department. He has over 30 years’ experience of working and investing in emerging markets all over the world.

During that time Mobius has established an international reputation as one of the most successful investors in emerging market stock markets. His many accolades include being voted Emerging Markets Fund Manager of the year in 2001 and one of the Top 100 Most Powerful and Influential People by Asiamoney magazine in 2006. However, his timing has not always been perfect. In 1997 he launched a new Thai fund just days before the bhat’s devaluation led to a collapse in the local stock market, and his early experience of investing in Korea was not wholly successful. However, the performance of his funds this decade has been impressive with returns often exceeding 20% per annum.

Mobius has made no secret of his interest in technical analysis and his new book, “Technical Analysis: An introduction to Core Concepts”, is shortly to be published by Wiley and Sons. In this interview, he talks to us about his approach to investing, his view of the markets, and the recent talk about a possible decoupling between the emerging and developed markets.
TA: Can you tell us something about the funds you manage at Templeton?

MM: I, along with my team, manage Franklin Templeton's emerging and frontier markets funds. These include not only global emerging markets, but also regional and country funds and we also have private client accounts as well as strategic equity funds. Total assets under management now total about $40 billion. I'm very much involved in all the emerging areas – Asia, Eastern Europe, South America and Africa including the so called ‘frontier markets’ as well. Of greatest interest at the moment are Korea, Taiwan, Thailand, Brazil and Turkey. In fact our investment universe also includes frontier markets globally which are smaller and less developed than emerging markets such as the countries of central Asia. As far as assets are concerned, our main focus is stocks although we do study FX and commodity prices in order to evaluate the impact of currencies and prices on individual companies' valuations.

TA: What is your view of the Chinese stock market at the moment? Many well-known investors such as Burton Mikael remain bullish despite the very steep recent gains.

MM: Taking a long-term view, we maintain a positive view on Chinese stocks. However, we prefer the relatively cheaper, Hong Kong-listed “H” and “Red-chip” shares as opposed to the domestic “A” shares listed in the mainland China markets.

TA: When so many people are unconditionally bullish about a market such as China, isn't this often a warning sign? Are there any China contrarian investors out there?

MM: Not necessarily. China is one of the largest major emerging market countries today and it offers investors an exciting investment opportunity that just cannot be ignored. Moreover, the investment universe continues to grow as a result of IPOs and divestments from the Chinese government. I'm sure that there must be some contrarian investors out there because for every buyer there has to be a seller. What is most important is that China is growing at 9% in real terms, which is the fastest growth of any major economy in the world.

TA: Does China have a serious inflation problem that is yet to emerge?

MM: Inflation is certainly a growing problem in China but it is not serious yet. The government is most concerned about food inflation since it impacts the poorer parts of the population. China is not the only country that will be impacted by inflation. Given the rising prices of commodities and lower interest rates in the US with increases in money supply, inflation could become a global problem.

TA: There has recently been much talk about a decoupling between US and Chinese (and Asian) stocks and economies. Do you believe this is a real phenomenon and, if so, is it set to continue?

MM: I don't believe in decoupling because the world has become so interdependent. There is no question that the relationships between nations are growing because world trade and travel are on the increase, but whereas in the past the US was the centre and still is the biggest economy in the world, in relation to other countries the influence of the American economy has diminished so we are seeing new centres of economic wealth and growth.

While Asian stock prices have recently fallen in sympathy with what is happening in the US, you must remember that emerging markets are generally not strongly correlated to the US and after an initial change in sympathy, the individual markets go their own way. In other words, what correlation does exist tends to be over the short term. I think that we have now reached the stage where the emerging market domestic investors are having more impact than foreign investors. This is something new. When Templeton first arrived 20 years ago our investment decisions would impact on the local stock market in that markets would rally when we bought. This doesn't happen anymore as we are very small in relation to other investors, especially local investors.

In fact, with the sub-prime crisis and credit crunch in the US, we may even have reached the stage where emerging markets are now enjoying something of a safe haven status.
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for Western investors. Also, emerging markets have enjoyed much greater returns than developed markets. With their economies expected to grow on average by 7% this year compared to 2% or less for the developed economies, this makes their markets an obvious choice for investment.

An interesting point about correlation between markets is that there is now also less correlation between different emerging markets themselves over the longer term. Whereas the Eastern European and South East Asian markets would once be expected to move together, this relationship is also starting to breakdown.

**TA:** Which other emerging markets do you believe will enjoy strong growth in the future?

**MM:** After China there are the rest of the BRICS countries - India, Russia and Brazil - and then I see other countries that are very significant and growing in size, which include Turkey and South Africa and some of the so called “Stans” such as Kazakhstan as well as some of the East European countries. The Stans have oil and are benefiting from the high price level. This means that these economies are attracting investment as the governments look to develop infrastructure and diversify into other industries.

Despite recent events, there is still a lot of new growth taking place in the world. The advantage that Asia has is that it remains the largest emerging markets region and is home to more than 50% of the world’s population which provides it with a huge consumer base. In addition to the strong economic growth in emerging markets, per capita incomes have also been rising, which leads to lower correlation on economic activities between them and the US.

**TA:** How and to what extent do you use technical analysis?

**MM:** I use technical analysis to complement our fundamental analysis which involves both quantitative and qualitative measures. We don’t believe that one can accurately time the market, however we do use TA to show us relative strength as well as moving averages in relation to the long-term history of the price performance of a stock. We also use TA as a money management tool in helping to assess stop loss levels.

I don’t think that one can make sound investment decisions on the basis of TA alone. Investors should use TA as a complement to fundamental analysis in assessing what the fair value of a company should be.

**TA:** Would you describe yourself as a trend follower?

**MM:** No. We pride ourselves in following our own analysis and judgment. In many cases, this requires us to take a contrarian view to other investors. For example, for us it is always better when markets have fallen sharply as this presents an opportunity to pick up bargains. We look for stocks that are fundamentally undervalued so this is anything but a trend following approach.

**TA:** Because many emerging markets stock markets are heavily traded by retail investors, does this change the way the charts look with so many investors using TA to make their decisions?

**MM:** I think that institutional and asset management firms such as Franklin Templeton are also very prominently involved in emerging markets investing in addition to retail investors. Consequently, I don’t think that any individual group can dictate the price charts. Looking at how the developed and emerging stock markets trade, I can’t honestly say that I detect any difference in the way they trade either on a daily basis or over the longer term. A chart of the Shanghai index has the same characteristics as a chart from a developed market.

**TA:** What form does your fundamental analysis take? We recently spoke to Jim Rogers who said that he really needs to visit a country to get a feel for what is happening. Are you similar in this regard?

**MM:** We specialize in bottom-up, value investing. We believe that the best long-term results can be obtained by looking for stocks which are undervalued relative either to their own history or to other stocks in their sector either locally or globally. This strategy requires a long-term view and patience. Yes, visiting companies is essential to our investment process. We consider this first-hand knowledge to be crucial to our research process when investing in emerging markets and consequently, our team conducts approximately 1,500 visits annually. We interview management, assess quality of products or services, speak with customers and competitors and ascertain sustainable competitive advantage. This forms the basis of our long term fundamental view.
“Managing risk is an art in itself.”

DAVID HARDING
Managing Director,
Winton Capital Management

David Harding has a perfectly clear picture of risk. As managing
director and a founder of one of London’s most prominent hedge funds,
with $6 billion under management, David relies on CME Group to adjust
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Mutual Funds Overreact to Analyst Recommendations

How does the market react to equity analyst upgrades and downgrades? Three US based researchers have looked at how mutual funds herd together into stocks with consensus analyst upgrades and especially herd out of stocks with consensus downgrades. Interestingly the authors found that upgraded stocks bought by herds initially outperform, then underperform their size, book-to-market, and momentum benchmarks, while downgraded stocks that are heavily sold exhibit the opposite pattern. An investment strategy that exploits these return reversals they say generates a benchmark-adjusted return exceeding six percent per year. The authors believe that such stock price reversals are better explained by the overreaction of poorly-performing mutual funds to analyst revisions than by many other proposed explanations.


Simultaneous Overreaction and Underreaction

The behavioural biases of underreaction and overreaction have both been well established in the academic literature, but when do investors overreact and when do they underreact? Michael Kaestner of Montpellier University looks at this issue. He describes underreaction as a slow adjustment of prices to corporate events or announcements, whereas overreaction deals with extreme stock price reactions to previous information or past performance. Kaestner investigates the current and past earnings surprises and subsequent market reactions for listed US companies over the period 1983-1999 and finds that investors simultaneously exhibit short-term underreaction to 'earnings announcements' and long-term overreaction to 'past highly unexpected earnings'. The author shows that overreaction and the later reversal is stronger for events which exhibit a long series of similar past earnings surprises.


VOLUME FILTERS FOR OVERREACTION STRATEGIES

A paper in the Review of Financial Studies looks at the weekly profits available from market overreaction on large-capitalization NYSE and AMEX securities and finds that decreasing-volume stocks experience greater price reversals, whereas increasing-volume stocks exhibit weaker reversals and positive autocorrelation.


ETFS REDUCE MARKET EFFICIENCY

A new method for testing predictive models that copes more effectively with issues of data snooping has been used to examine the predictive ability of technical trading rules on growth and emerging market indices and their exchange traded funds (ETFs). The authors find strong evidence that these market indices are predictable by technical trading rules, but the predictive power of such rules weakens after ETFs are introduced. Their results suggest that ETFs effectively improve market efficiency of growth and emerging markets.

Hsu, Po-Hsuan, Hsu, Yu-Chin and Kuan, Chung-Ming, "Testing the Predictive Ability of Technical Analysis Using a New Stepwise Test Without Data Snooping Bias" (1/20/2008).

Combining technical and fundamental trading strategies into one unified strategy improves the risk-adjusted performance in emerging currency markets. This is the conclusion of a team of Dutch researchers from Robeco and Erasmus University who looked at three fundamentally based strategies (GDP, real interest rate differentials, and money supply) and numerous permutations of moving average rules for 23 emerging markets with floating exchange rate regimes. They found that both methods could be profitable, but that combining the two types of information improves the risk-adjusted performance of the trading strategies. The combined strategy yielded positive risk-adjusted returns for all 23 currencies under study, with 12 being significant at the 5 percent level.

Equity investors no more rational than football fans

Is the reaction of football fans around their teams’ big matches similar to that of investors around important company events? Two US researchers believe so. Gennaro Bernile from the University of Miami and Evegeny Layndres from Rich University have examined two potential explanations for what they call the stock market’s inefficient responses to resolutions of uncertainty: a) biased ex-ante beliefs regarding probability distributions of possible event outcomes, and b) irrational ex-post reactions to the outcomes. They use a sample of publicly traded European football clubs and analyze their returns around important matches. Using a proxy for investors’ expectations based on contracts traded on betting exchanges (prediction markets) they find that investor sentiment is attributable largely to a systematic bias in investors’ expectations. Investors are overly optimistic about their teams’ prospects before a big game and, on average, end up disappointed after it, leading to negative post-game abnormal returns.

Bernile, Gennaro and Lyandres, Evgeny, "Understanding Investor Sentiment: The Case of Soccer" (February 1, 2008).

Friday Earnings Announcements

Investors have now caught on to the idea that firms prefer to report “bad” news on Fridays. According to research by Leon Zolotoy of Tilburg University, during the period 1989-2006 firms tended to report more “bad” news on Friday than during other trading days. This resulted in a shift in the earnings-return relationship with stock returns becoming more sensitive to Friday earnings announcements compared to announcements released during the rest of the week. Moreover the relative sensitivity of stock returns to Friday versus the non-Friday earnings announcements is related to the quality of the informational disclosure by the firms’ management. As such, the authors conclude that investors have learned about the firms’ management strategy to report "bad" news on Fridays and that the benefits from following this strategy have disappeared.

Zolotoy, Leon, "Friday Earnings Announcements and the Earnings-Returns Relation: A Temporal Analysis" (December 21, 2007).

LIQUIDITY VS PERFORMANCE

What is the relationship between trading volume liquidity, measured at the individual stock level, and stock performance? Three US based researchers looked at the stocks that make up the S&P 500 Index and a broader index of the top 1,000 stocks measured by market capitalization and show that three liquidity-related measures - trailing 3-month trading volume, dollar value of trading volume, and turnover - are monotonically related to price-to-book and market capitalization, and momentum strategies based on both past 6-month "winners" and "losers" tend to experience higher liquidity. When they sorted stocks based on each of these liquidity measures they found that the more liquid stocks based on trading volume and turnover tend to have higher subsequent returns (1 through 12-month holding periods) than the less liquid stocks, although the reverse was true based on dollar volume. They also showed that the most heavily traded quintile of stocks experienced significant superior performance.

The fact that Bloomberg has now begun publishing many books on technical analysis reflects, along with the recent revamping of their screen service, the company's more pro-active approach to the subject. Their recent releases have been beautifully produced publications that are well edited and carefully put together. This book, edited by David Keller, a technical analysis application specialist at Bloomberg and chairman of the Market Technicians Association in New York, is in a similar vein.

“Breakthroughs in Technical Analysis”, contains descriptions of various techniques, many of which have already been the subject of previous (non-Bloomberg) books. This makes the format of the book original and means that the various chapters can be dipped into instead of having to read the book from cover to cover. It is divided into ten chapters, each one written by an expert in a particular strategy. What makes the book interesting is the focus on some lesser used techniques such as Drummond Geometry, Ichimoku charting, DeMark and Market Profile.

Drummond Geometry is perhaps the lesser known of all the indicators in the book. It works by projecting support and resistance levels using a short-term moving average called the PLdot (point and line dot). The moving average is constructed using three price bars of data which determines if prices are trending or not over the given time period. This is then plotted as a dot on the next price bar, and so on. Although Drummond is certainly a lesser used technique, I am aware of a fixed income fund manager at a major institution in London who swears by it, which suggests it's worth investigating further. As far as I know, a proper explanation of Drummond has not been published before which perhaps make this chapter one of the most valuable of the book.

Elsewhere, Nicole Elliott from Mizuho in London, author of a recently published and definitive book on Ichimoku charting, provides a brief summary of the technique which is a useful overview for those considering learning more about the subject. Tom DeMark indicators are well known although he is rarely to be found in print these days which makes his chapter something of a novelty. Around ten years ago he published his own book outlining his proprietary indicators called, “New Market Timing Techniques” (Wiley). This publication is probably not, however, the best way to become acquainted with his work. The leading experts on DeMark in Europe - Trevor Neil and Jason Perl of UBS - are far better at explaining how the various DeMark indicators work than Tom DeMark himself.

There are also sections on candlesticks, Fibonacci and Gann, all of which benefit from several well illustrated examples. Finally, Robin Mesch, a US based analyst, presents a chapter on Market Profile. Like Drummond, this is a subject that has been in need of the publication of a clear and precise description of how it works for those unfamiliar to the indicator. Market Profile is available on most software packages and was a favourite technique of futures traders in the days of open outcry. However, the subject seems to attract less attention these days so this well written summary is of much value.

This latest book from Bloomberg is probably best suited to traders who have a general interest in the subject of technical analysis and would like to know more about what other traders may be using. Many of the techniques described in its chapter tend to be used to the exclusion of other indicators in that if you are a fan of Ichimoku, then you will never look at a DeMark chart. However, it should also be of value to those readers who have heard names such as Ichimoku and DeMark but have never used them and so would benefit from a general introduction.
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Latency and Market Data Feeds
By Andrew Salgado

In this article Andrew Salgado looks at the link between market data vendor screens used for equities feeds and electronic trading latency. He focuses specifically on exchange listed stocks and, for clarity, he looks at only one example: the case of a London based hedge fund trader using a Bloomberg Tradebook market data vendor screen that shows “real time prices” for the Frankfurt stock exchange. With this example, Salgado illustrates how market data ticker plant displacement is a major source of electronic trading latency.

Exchange Market Data Feeds
An exchange market data feed is generated from the inbound order flow of brokers’ bid and ask trades, the net exchange of each bid and ask results in the execution of an order that is then routed out bound as an executed trade. The aggregated trades for a given stock or a number of stocks are then delivered outbound as an exchange feed. In most instances the feed is delivered raw so multiple market data providers can code the raw feed so it is displayed in the standard data codes of each vendor, (an example of this is the Reuters list of RIC codes).

However, in most instances exchanges deliver a raw feed which is transmitted via dedicated networks to remote ticker plants hosted by market data vendors. The next stage in the delivery of the exchange feed is to “normalize” the feed so it can be presented as a standard visual display also known as a graphical user interface. The interface can be one provided by a market data vendor or it can be one provided by a broker. In this article I will use the example of a Bloomberg Tradebook screen that displays depth of book data from the Frankfurt exchange. As most equity traders know, Tradebook is the introducing broker platform that is managed by G Trade securities a multi exchange agency broker.

The standard graphical interface (GUI) to view this data feed is presented by vendors such as Reuters, Thompson and Bloomberg. The benefits of viewing the executed trades in a GUI are several. One single screen can display real time news, historical and intra-day graphs and intra-day prices of specific stocks, bonds and foreign exchange for example. However the market data ticker plants in large data centres that aggregate the stock exchange feeds are rarely in the same geographical location as the stock exchange that generates the prices viewed on the vendor’s screen. For traders that do not need low latency trading solutions, the vendor screens are an adequate solution. This could be, for instance, a small buy side hedge fund that trades a few low volume trades once or twice a week. However, for hedge funds that are looking to trade several times a minute, a new approach is needed to source low latency exchange market data.

Market data ticker plants
If we take the example of the hedge fund based in London which trades equities on the Frankfurt exchange we can drill deeper and trace the physical route of the exchange feed and the path of the data that eventually is viewed on the trader’s GUI.

Step 1. The exchange transmits bid and ask prices for all the tradable stocks. The hedge fund in London buys Siemens stock via a Bloomberg Tradebook screen using G Trade as the introducing broker.

Step 2. The bid and ask data is transmitted via a private network to the market data vendor’s ticker plant. In the case of Bloomberg Tradebook screens the ticker plant is based in New Jersey.

Step 3. The data vendor receives the data via feed handler applications that normalize the raw exchange data into market data identifiers for each stock, such as Reuters RIC codes. In the Bloomberg example, the data is linked to SEDOL or CUSIP ticker codes.

Step 4. The data vendor retransmits the exchange data via its private intranet and the processed exchanged data from Frankfurt is then displayed...
on a vendor’s screen. In our example, a Bloomberg Tradebook screen in the London based hedge fund sees the prices of Siemens stock trading at 55/56 Euros.

**Step 5.** The hedge fund in London views the prices of the Frankfurt exchange on the Tradebook GUI but in actual fact is viewing data sets that are processed on servers that are physically located in New Jersey. This is the standard ASP model where data sets viewed by the trader in London are actually processed in a geographically remote server farm.

**Step 6.** The trader clicks to buy 1000 shares of Siemens at 55 Euros.

**Step 7.** The buy order goes back to New Jersey via a private network which is then re routed to the introducing broker’s order management system (OMS). In the case of Tradebook, this would be G Trade, which brokers trading and credit risk on behalf Tradebook.

**Step 8.** The GTrade OMS will then process the buy order following specific compliance rules and trading instructions (such as buy 10 shares every 2 minutes until complete).

**Step 9.** The hedge fund’s broker in this case, G Trade, will use a private intranet to re route the sell order to a local broker in Frankfurt to “pass through” the trade via its own exchange member gateway. This local broker will have its own checks and balances OMS to monitor compliance, credit and trading rules for that specific client account.

**Step 10.** The order to sell reaches the exchange gateway and is processed again with another set of trading and compliance rules managed by the exchange. The order is filled or partially filled and updates are sent back to the member broker which in turn sends updates to the introducing broker, GTrade.

**Step 11.** G Trade then sends the update to the Tradebook ticker plant in New Jersey.

**Step 12.** The update is then retransmitted back via private intranet to the hedge fund in London and the executed trade appears in the trader’s Tradebook screen back.

With these twelve steps, we can see how the original price that the trader views, 55 Euros, has travelled twice across the Atlantic so it can reach the trader’s PC and then twice again to reach the order gateway on Frankfurt exchange.

It is worth noting that equity trading that is not latency sensitive, that is trading in the 1 to 3 second range, fit in well in this introducing broker model. There are several benefits; one is that the London based trader has on one screen a multi exchange front end with access to news, graphs, fundamental equity data plus trading access.

Other market data vendors such as Fidessa, Trading screen, Reuters order routing, Charles River, Eze Castle, Bloomberg position order management system (POMS) offer different variations on a similar platform, namely, access to a multi exchange, multi broker, multi asset class trading system. Some solutions go several steps further and offer position keeping, real time profit and loss, cross currency exposure and trading compliance rules.

What is key when analysing any of these systems is to ask, “When I see the depth of book of an exchange, where is the ticker plant geographically located that consolidates the depth of book of the exchange I am looking at?” After that question and the explanation to it is analysed, the next question should be, “How many brokers is my order being routed to?” Very few market data platforms for the buy side have single broker connections to multiple stock exchanges, most have an introducing broker, that monitors credit, trading rules and compliance risk and then passes the trade to a local member of the exchange which in turns runs its own risk and compliance checks.

It is also worth noting that a mono broker solution, such as GS Redi, MS Passport may offer a multi stock exchange trading platform but the downside of these platforms is that the servers managing client trading data are never next to the stock exchanges they connect to. To be fair, a broker has to offset the benefit of one single data centre processing the trades for multiple exchanges versus the distance and latency of clients’ trading data to and from multiple exchanges. There are other services linked to single broker trading platforms that form part of prime broker services, such as stock lending, capital introduction and financing.

Andrew Salgado designs low latency trading solutions for hedge funds.
SOFTWARE SPOTLIGHT: TBRICKS

Jonas Hansbo, CEO of Tbricks, tells us why he believes Tbricks Genesis is the next generation in automated trading systems.

Why did you found Tbricks?
We founded Tbricks with a vision to reinvent how professionals trade the financial markets. Our mission is really to provide professionals with the most user-friendly and efficient tools for executing automated trading strategies on the financial markets.

Behind Tbricks are prior managers and founders of Orc Software. The five founders of Tbricks are Jonas Hansbo (CEO), Joakim Johansson (CTO), Aleksey Dukhnyakov (VP of Engineering), Erik Heimdahl and Ronny Wester. Our main office is in Stockholm and we also have a development facility in St Petersburg, where the main bulk of the product engineering takes place.

Who owns the company?
The company is owned by its founders and among others the private investors DN Capital and Swedish Raxor Capital. Also Nils Nilsson, co-founder of Orc Software, is one of our major investors.

Who are Tbricks customers and who are its competitors?
Our customers can be found all over the world, anywhere where electronic trading/DMA is an option. Tbricks will be of interest for any professionals looking at automating their trading.
We generally see three categories of competitors. Firstly there is CEP (Complex Event Processing) focused software (Apama, Aleri, Streambase, Vhayu, Xenomorph) that see the actual processing of events as their biggest strength. Secondly, we have trading systems (Actant, SkylerTech, Quanthouse, Fidessa, GL Trade, RTS, First Derivatives, Orc), that provide broad and general solutions for the institutional players. And thirdly there are the in-house systems that are built by and for the financial actors themselves. We view these systems as our number one competitor.

We target anyone trading via DMA over the FIX protocol. Today this means that we target anyone trading equities or FX via FIX. Our main customers at this point in time are prop desks at banks and hedge funds.

What kind of automated trading systems are your focus?

High frequency arbitrage strategies and low-latency arbitrage (e.g. in pairs trading or cross currency trading) is a clear focus area. It is also fit for longer term directional systems given its unique user interface developed in collaboration with Panopticon.

What’s new about Tbricks Genesis and what are its main competitive advantages?

The system has been designed to provide professional users at banks and hedge funds with the power and control they need, offering high visibility of the results of their activities, and supporting vastly higher levels of productivity than previously possible. Latest generation trading systems like Tbricks Genesis allow users to automate buy and sell orders in the marketplace in millisecond timeframes, leveraging today’s low latency infrastructures. Based on a given trading strategy, Tbricks Genesis system can handle a dramatically higher volume of transactions.

Tbricks Genesis is designed specifically to support very high speed automated trading and features a unique user interface that makes it easy for traders and managers to understand market movements and take control of their trading strategies. Its highly modular design allows institutions to implement an unlimited number of complex trading strategies and algorithms while maintaining extremely high performance.

Explain the components of Tbricks Genesis and what third party add-ons/components would be required?

Genesis comprises all the components needed for automated trading, including a clustered strategy engine setup, market data adapters, trading adapters, integration modules. Required to trade are FIX destinations or venues offering DMA, market data from either vendors like Reuters or Activ Financial or from the venue destination itself.

Any C/C++ Quantitative libraries can be integrated into the strategies. We offer full access to any such libraries in our runtime.

Backtesting can be done using our internal market place with standard FIX interfaces, which works just like a simple replica of an exchange, offering order entry/matching, deals coming back and market data.

How does Tbricks Genesis reduce latency? How does it match up to either off-the-shelf systems or to systems built from the ground up?

We believe we can display very competitive latency numbers in comparison with the competition, both ISV and in-house system. We have from day one set the bar on latency and run nightly system tests where we measure our internal latency, and we do not allow features that compromise it.

We plan to publish white papers on exactly how we measure it.

What programming language skills or IT background would a user need to run Tbricks. Who will you typically talk to at a company in order to get Tbricks Genesis up and running?

It would require some knowledge about FIX programming and C++ for strategy development. We also offer consultancy services for integration and strategy development. We would talk to the CTO, System Administrators, the Head of Trading and finally the Strategy Developers and Traders that are going to run the strategies in production.

Does Tbricks Genesis function as a good compromise between buying an off the shelf system and building a system from scratch, i.e. can be used to create a fairly bespoke system without excessive development time?

Yes. Older systems have standardized or parameter driven models for how the trading is supposed to work. Our systems enable each user to implement their own strategy, thus instructing the system how to act. Therefore every client has a unique system, although developed from the same platform.

For further information, visit www.tbricks.com
**Training Courses**

**Training with The Technical Analyst**

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**Course Details**

**Duration:**
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**Who Should Attend:**
Traders, fund managers, hedge funds, risk managers, analysts and brokers

**Principal Trainer**

Trevor Neil became a commodities trader at Merrill Lynch in the mid 1970s before going on to work at LIFFE giving technical analysis support to floor traders.

In 2000 he became head of technical analysis at Bloomberg where he was responsible for training and technical analysis software development.

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The essential technical analysis course providing a thorough grounding in TA techniques for traders and investment managers new to the subject.

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**TA FOR THE PORTFOLIO MANAGER**

Recognising that portfolio managers and analysts do not need the kind of technical analysis used by day-traders and dealers, this course concentrates on market timing from a longer-term point of view. This course is designed to give a timing overlay for fundamental decisions.

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**FURTHER COURSES**

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- **Research**   The STA Journal publishes research papers on TA techniques and approaches
- **Meetings**  Provide members the opportunity to discuss technical approaches and markets
- **Representation**  The STA lobbies on behalf of analysts with data vendors, exchanges and regulators.  
  The STA represents the UK at the International Federation of Technical Analysts (IFTA)
- **Accreditation**  The STA Diploma Exam is internationally recognised as a professional level qualification in Technical Analysis

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