PARAMETRIC PERSPECTIVES

NEWSLETTER / ISSUE NO. 9 / WINTER 2010

"Take risks: if you win, you will be happy; if you lose, you will be wise."

- Author Unknown

Paul Bouchey, CFA, is the Director of Research at Parametric.
pbouchey@paraport.com

NEWSLETTER HIGHLIGHTS

Exploiting Volatility

We live in higher volatility reality. The VIX has come off of its dizzying heights, but is still at an elevated level and there is little reason to suspect that the calm waters of 2003-2005 are coming back any time soon. As investment professionals, we need to take a breath, shake off the fear and stress created by the experience of living through the crash of 2008-09 and figure out how to cope with the new reality in which we find ourselves. We want to do more than cope, we want to *exploit* volatility.

Over the last five years, bond volatility has doubled and stock volatility has tripled. Also, cross-sectional volatility (CSV), a measure of the dispersion of stock returns in any given month, has increased significantly. While the absolute level of volatility is a useful measure of market risk, CSV is of greater importance when assessing active investment managers and in benchmark-relative portfolio construction. In other words, it provides a measure of the opportunities available for managers to add value through active management. CSV hasn't increased as dramatically as time-series volatility because correlations during the crash increased as well.

The primary defense against volatility is to cut one's portfolio with fixed income. The maximum draw down during this period for the Barclays Aggregated Bond index was -6%, the Russell 1000 -53%, and a 50/50 mix -27%. Correlations to equity during this five-year period ranged from -0.58 to +0.45. Bonds reduced volatility and were a good diversifier. Ignore chants of "diversification is dead."

To really exploit volatility, though, consider rebalancing. Market concentrations build up and collapse as we have seen in Japan in the 80s, Tech in the 90s, and Financials during the recent real estate bubble. Rebalancing reduces concentration, reduces downside risk, and reduces volatility. It contra-trades the current market sentiment—think about the uncomfortable feeling holding the RAFI 1000 index in March 2009 when it rebalanced back into financials. This trade was completely contrary to human nature and yet it resulted in double digit outperformance.

Which brings up a good point: we have found that rebalancing increases the long-term compounded growth of a portfolio (see article on Why Volatility Capture Works).

continued on page 03

Why Volatility Capture Works

Vassilii Nemtchinov, PhD

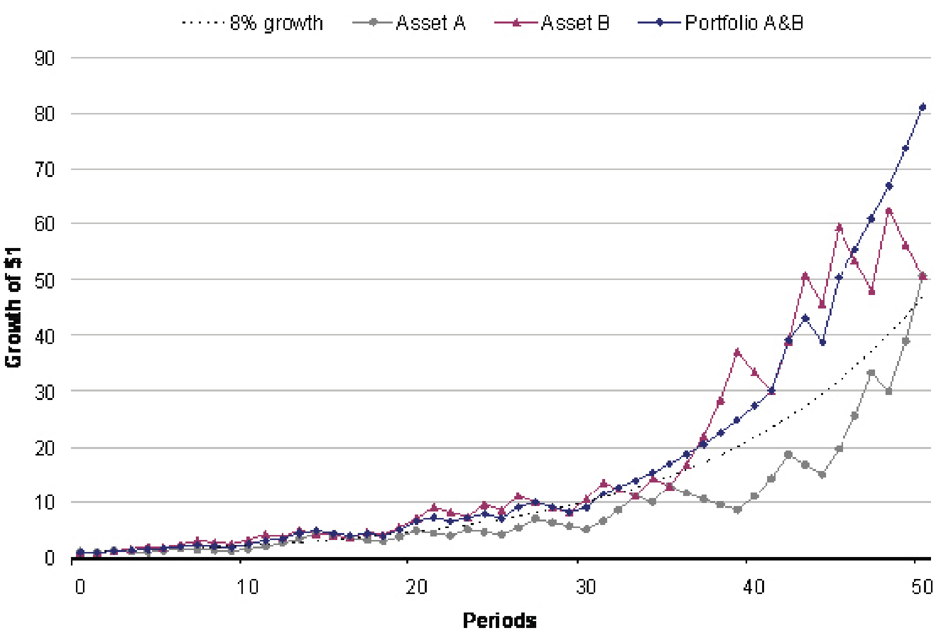
The process of combining and systematically rebalancing assets that exhibit variability in their returns is known as volatility pumping. This process seeks to capture a unique source of incremental growth by exploiting the volatility that exists in equity markets. Both our Structured Emerging Markets strategy and our newer Structured International Equity strategy use these principles as they seek to improve returns.

Consider a simple investment strategy where the outcome is determined by a coin toss. If the toss is Heads then the stock gains 30% and if it is Tails then the stock loses 10%. The expected return, or the average return, is 10%. What would be the expected value of the long-term compounded growth of our capital for this process? 7.9%.[1]

Would it be possible to have a strategy where the expected growth is higher than the one we saw in the previous case? Let's consider a strategy where we have two random processes and the outcome of each is determined by a coin toss. For simplicity we will consider two identical processes whose outcomes are determined as we described earlier. We begin with the investment equally split and we will stipulate that after each coin toss we split all our money in half and invest in each process again, regardless of the outcome of the toss of the coin. In other words, we will constantly rebalance our capital. If the stock increases in value we sell and if it decreases we buy. The expected return for this strategy is still 10%. What would be the expected growth of this strategy? If we take the product of the probabilities and the expected growth rates in the table below, we get 8.7%. The chart below shows an example set of coin flips for Asset A, Asset B and a rebalanced portfolio.

The expected growth rate of the combined strategy is higher than the average expected gain from both assets. When volatilities among the assets are high and while correlations are low, rebalancing turns volatility from an enemy into something that can be harvested or captured (see "Diversifying and Rebalancing: Emerging Market Countries" by Stein, Nemtchinov and Pittman published in the *Journal of Wealth Management* in Spring 2009).

The Parametric Structured Emerging Markets strategy utilizes such an approach by employing systematic rebalancing to a fixed set of country target weights. It has captured a significant premium given the environment of high volatility and low country market correlations experienced during the last 14 years. A similar structured approach with rebalancing can be applied to other volatile markets: developed market equities, commodities, and so forth.



	Expected Return	Probability	Expected Growth
Head & Head	30%	0.25	26.2%
Head & Tail	10%	0.25	9.5%
Tail & Head	10%	0.25	9.5%
Tail & Tail	-10%	0.25	-10.5%
Total			8.7%

Vassilii Nemtchinov is the Manager of Applied Research at Parametric.
vnemtchinov@paraport.com

[1]Try this in Excel: the expected growth is 50% probability ln(1+0.3) and 50% ln(1-0.1).

Hedged Equity Case Study:

Upside potential with downside protection

Situation

A US-based family investment company held a diversified portfolio of US equities, in a tax managed account. Concerned about current market levels in 2008, the family explored several alternatives to reduce potential downside exposure in the US equity market, while still maintaining upside potential.

Alternatives Considered

- Exposure reduction with liquidation of portfolio; conversion to cash – rejected due to the uncertainty of a decline and the disruption to the investment program.
- A temporary option overlay program that provides partial downside protection and continued upside participation (see the options disclosure on page 4).

Solution

- Parametric implemented a listed options overlay program which combined the purchase of long-dated S&P 500 put spreads to reduce downside exposure with the sale of an offsetting long-dated S&P 500 call option.

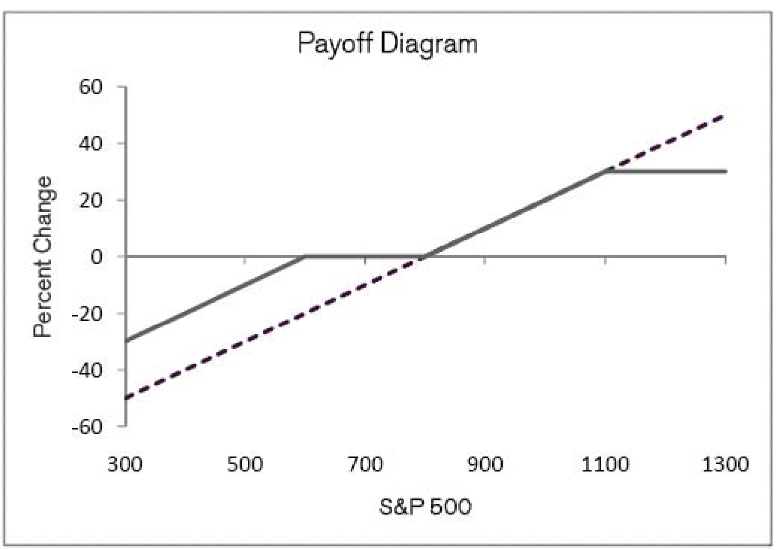
The client was left long their underlying portfolio with protection from a 5-20% decline in the market over the next year while retaining the first 30% potential upside over the next year.

- The net result was partial downside protection which was effectively paid for through the sale of calls. Parametric will continue to monitor all options positions and adjust as appropriate.
- Parametric continually monitors underlying portfolio holdings for potential tax overlap and strategy drift and incorporates changes in index weightings into option rolls.

Benefits

Underlying "beta" exposure was hedged. Underlying tax manager "alpha" retained as call options were sold only on the "beta" component of the portfolio.

- Tax straddle issues are managed.
- Listed options are traded in an open-outcry market supporting best execution and accurate and transparent portfolio valuation.



Continued from page 1...

Rebalancing hurts in strong bull or bear markets where reversals are small and infrequent. However, once the markets reverse themselves—and when assets are highly volatile and uncorrelated—rebalancing adds alpha, as evidenced by our Structured Emerging Markets strategy.

Another interesting fact is that high volatility stocks have underperformed low volatility stocks over the last thirty years. CAPM predicts that investors should get a risk premium for holding higher volatility securities, but when you factor in volatility drag you are better off underweighting the most volatile stocks. There is some great research going on in this area, particularly around our new Structured International strategy, which has a 12-month excess return of 2.86% ending December 31, 2009.

Another tool for exploiting volatility is the humble option. Puts and calls have been used strategically in a portfolio to manage risk, for example an S&P 500 portfolio with a 10 percent put spread that is funded by call writing (see the Case Study on Hedged Equity).

Like an in-law over the holidays, volatility will stay with us for longer than we might like. We need to cope and perhaps even benefit from the situation.

Parametric™
Leaders in Structured Portfolio Management

1151 Fairview Avenue N.
Seattle, WA 98109
T 206 694 5500
F 206 694 5581
www.ParametricPortfolio.com

About Parametric

Parametric is an industry-leading provider of structured portfolio management, headquartered in Seattle, Washington. Parametric and its affiliate, Parametric Risk Advisors, offer a variety of structured portfolio solutions, including customized core equity portfolios (U.S., Non-U.S., global Tax-Managed Core™), options strategies (DeltaShift℠), emerging markets (Structured Emerging Markets™), and overlay portfolio management (OverlayOne™).

Total AUM (12/31/2009):

$32.9 Billion*

*This figure represents the combined AUM of Parametric and its affiliate Parametric Risk Advisors.

Established:

1987

Q4 2009 Market Commentary

US stocks rallied in the fourth quarter, with the S&P 500 Index up 6% in the final three months of the year, its third consecutive positive quarter. The Index finished 2009 up 26.5%; remarkable considering the fragile state of the US economy and the uncertain environment for capital and credit markets.

After leading the stock market recovery the past two quarters, the financial services sector cooled off in the fourth quarter. Bank stocks dragged financials into negative territory, making it the worst performing sector of the quarter, down 3.3 %. The best performing sectors were the cyclical technology (+10.8%) and consumer discretionary (+9.1%), sectors that are more sensitive to changes in the overall economy. Growth outperformed value (S&P 500/Citigroup Growth Index, 7.8%; S&P 500/Citigroup Value Index, 4.2%), essentially due to the concentration of technology in growth versus financials in value. Small and mid-cap stocks performed similarly to large-caps (S&P SmallCap 600 Index, 5.1%; S&P MidCap 400 Index, 5.6%).

The US equity market clearly did not recover on its own. The Federal Reserve kept interest rates at near zero all year and, with the Treasury, went on an unprecedented buying spree, injecting capital into the economy and encouraging investors to buy stocks. But inflation could limit the Fed's ability to keep capital cheap. Also unclear is the longer-term effect of the government's massive deficit spending programs, not to mention the impact if and when they are rolled back.

In international markets, the MSCI EAFE Index was up 2.2% in the fourth quarter and up 32% in 2009. The MSCI EM Index was up 8.5% in the quarter and up an impressive 78% in 2009. In the fourth quarter, Norway was the strongest performer (15%), followed by Singapore (10%), while the worst performer was Greece (-21%). For the year, Norway had the highest return (87%) while Japan had the lowest (6.3%). Similar to US markets, the financial sector was the weakest during the fourth quarter (-4.5%) dragged down by bank stocks. Strength in mining stocks buoyed the materials sector in the fourth quarter (13%) and all 2009 (68%) making it the best performing sector. In the fourth quarter, the US dollar reversed course and strengthened versus major currencies. For 2009, however, all major currencies except the Japanese yen appreciated versus the US dollar. The Australian dollar experienced the greatest currency appreciation versus the US dollar, strengthening 30% in 2009.

As all of this unfolds, our broadly diversified, sector-neutral Tax Managed Core portfolios will provide a great opportunity to capture the next market leaders, while doing so in a tax efficient manner.