

# PARAMETRIC PERSPECTIVES

NEWSLETTER

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“Most of the time common stocks are subject to irrational and excessive price fluctuations in both directions as the consequence of the ingrained tendency of most people to speculate or gamble... to give way to hope, fear and greed.” — Benjamin Graham

## ► Benefiting From Market Volatility

by Paul Bouchey, CFA — Director, Tax-Managed Research

July and August have seen the return of significant volatility to the global equity markets—something we haven't seen for several years. Most of the discussion has focused on the sub-prime lending market, its effect on financial stocks, and the abrupt changes in market sentiment that have created difficulties for quantitative hedge funds. The natural question when faced with any kind of change and uncertainty is “How does this affect me?” In this article we take a look at how Parametric Tax-Managed Core (TMC) portfolios have fared in this difficult market environment.

TMC portfolios are designed to track an underlying stock index—we don't try to beat the market, but by paying attention to taxes and opportunistically realizing tax losses, we seek to outperform the index after taxes. Over the last ten years the TMC S&P 500 composite has outperformed the index by 2 percent after taxes, thus outperforming 88% of the active mutual funds in the Morningstar Large Cap universe.

A recent analysis of TMC portfolios shows that we have tracked our benchmarks closely—within plus or minus 25 basis points for most accounts—and have seen a marked increase in loss harvesting activity. This has translated into an average after-tax outperformance of 32 basis points during the six week period from June 30th to August 16th, 2007.

Cross-sectional volatility—a measure of dispersion of stock returns within a single period—has doubled from 10 percent to 20 percent over the last two months. The market has dropped 6 to 7 percent from its high, but also the spread between high and low has increased significantly.

This level of volatility is not surprising in and of itself. A cross-sectional volatility of 20 percent, though unheard of in the last five years, was commonplace for the previous five years. More surprising is the dramatic shift in risk factor returns. Value stocks, small-mid stocks, and low price-to-earnings stocks have outperformed the broad market over the last five years—but experienced unusually large negative returns over the last two months. Some of these returns can be directly linked to sub-prime mortgages, but many of the movements appear to be the result of large funds and institutional investors attempting to reduce risk in their portfolios. What is also unusual is the recent high correlations between these factors, and between industries during this market turmoil.

TMC portfolios seek to provide pre-tax returns similar to their benchmark. To reduce trading costs and manage for wash sales, a subset of the benchmark's securities are held; for example, a TMC portfolio benchmarked to the S&P 500 might hold only 250 stocks. During

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# PARAMETRIC PERSPECTIVES

## Market Volatility

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extreme market conditions, small over- or under-weightings can have a significant impact on returns.

To understand how our portfolios fared in recent weeks, we examined a sample set of 750 accounts indexed to the S&P 500, Russell 1000, and Russell 3000 indexes. We used all accounts with readily available after-tax return data for this period, funded with cash prior to 6/30/2007, and which did not contain security restrictions or large cash flows during this period.

Figure 1 shows the distribution of pre-tax excess returns (portfolio return minus benchmark return) for these TMC accounts. The composite excess return over this six week period was 3 basis points—very close tracking. We observe an account dispersion (standard deviation across accounts) of 27 basis points, which is in the low to normal range.

These results indicate that our portfolios have tracked well during this market. One reason for this is that we tightly constrain our exposure to the risk factors within our model. We enforce several levels of risk management:

- Tracking error target – controls the total benchmark-relative risk.
- Risk factor bounds – controls the risk relative to individual risk factors, such as value, size, price-to-earnings
- Sector/Industry bounds – controls risk relative to sector and industry weights.
- Security bounds – controls security specific risks.

During this period of volatility, even small over-weights to value, small cap, low price-to-earnings or financial stocks would have caused significant underperformance. Because we constrain TMC portfolios to follow the risk factors closely, our portfolios have tracked their benchmarks closely as well.

In recent years, markets have been up, cross-sectional volatility has been low, and losses scarce. This has been a great market to be invested passively in equities, but a poor environment for loss harvesting. To isolate the value added from tax management we subtract any pre-tax excess return from our after-tax excess returns. This “tax alpha” has been in the 0.5 to 1.1 percent range, which is lower than our long-term experience.

As volatility has increased over the last six weeks, a significant amount of tax alpha has been generated. Figure 2 shows the distribution of tax alpha for the same set of TMC accounts examined above. Over the last six weeks the sample composite had 29 basis points of tax alpha on average. Half of the portfolios inception within the last three years (since 1/1/2005) and averaged 42 basis points of tax alpha. Older portfolios tend to have appreciated significantly and have a lower cost basis; they averaged 18 basis points of tax alpha.

During the recent market tumult, TMC portfolios have fared well—providing the consistent performance and diversification of index-based investing with the value added of active tax management. From this set of TMC portfolios we observed very close tracking to the index with significant tax alpha being generated.

**Acknowledgments:** I'd like to thank Tyson Alexander and Xiaozhen Li for help pulling this research together so quickly.

\*Please see Page 4 for important disclosure information.



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FIGURE 1: PRE-TAX EXCESS RETURN DISTRIBUTIONS

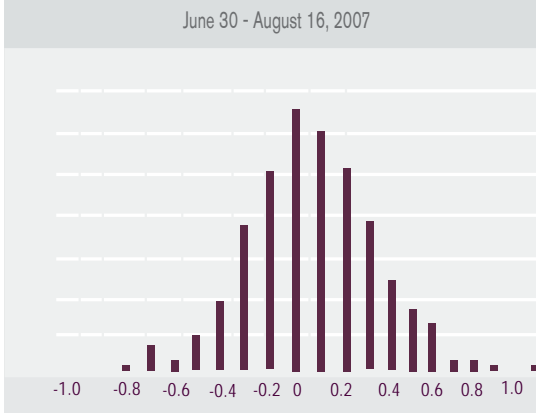
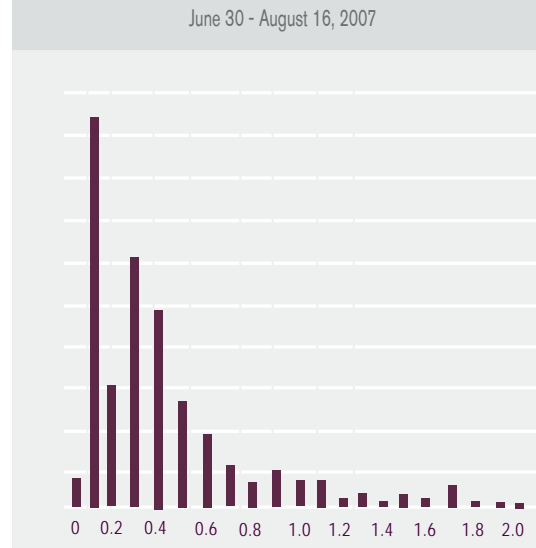


FIGURE 2: TAX ALPHA DISTRIBUTION



## ► Emerging Market Focus

Emerging market indexes are concentrated in a few of the largest countries—more than 80 percent of the S&P/IFCI index is allocated to the largest eight countries. In order to reduce risk and enhance return, our strategy adopts a more diversified and less concentrated stance, emphasizing smaller emerging markets.

Because the systematic risk of each country is recognized as the dominant factor in explaining emerging market returns, selecting and weighting countries—as opposed to selecting specific securities—is the most crucial determinant of investment success in a diversified emerging market strategy.

In addition to the benefit of overweighting smaller emerging markets, a more equally weighted approach provides the basis for a disciplined rebalancing strategy, and allows us to capture a “rebalancing premium”. This alpha is generated through the interaction of volatility and correlation.

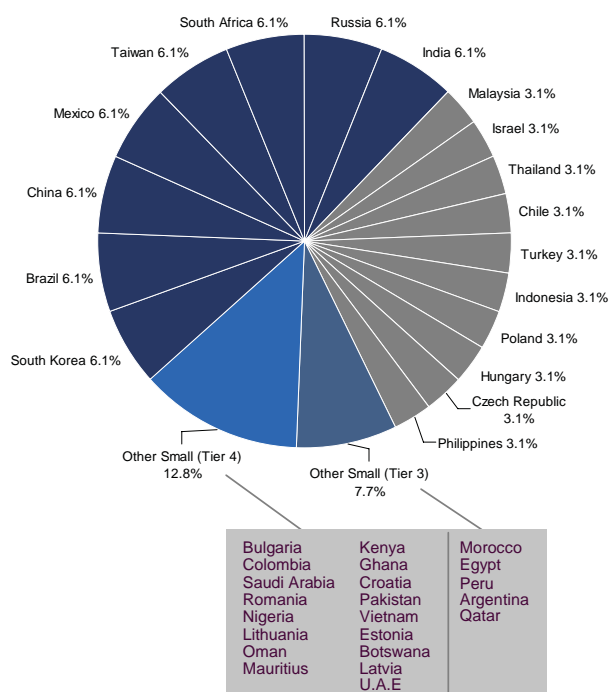
The greater the dispersion between outperformers and underperformers, the higher the profits from rebalancing. Similarly, the lower the correlation among assets, the greater will be the opportunity to rebalance. The factors of high volatility and low cross correlation are strongly representative of today’s emerging markets.

The adjacent charts show the differences in country weightings between the Parametric Structured Emerging Markets strategy and the S&P/IFCI index.

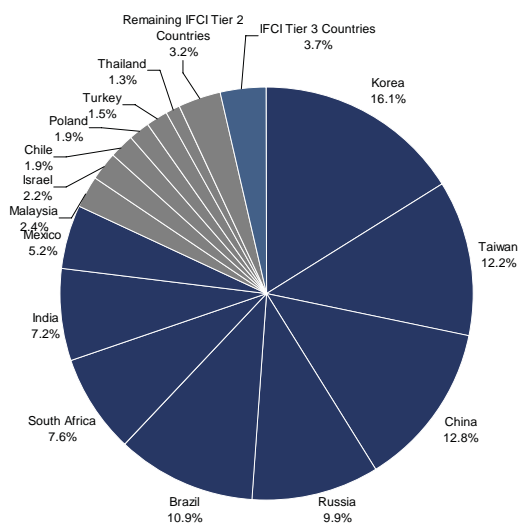
### STRATEGY: PARAMETRIC STRUCTURED EMERGING MARKETS

Inception of strategy	1994
Current AUM	\$ 1.5 Billion
Chief Portfolio Strategist/CIO	David Stein, PhD
Portfolio Management	Tom Seto, MBA
Five-year Annualized Composite Return (7/31/2007):	39%
Number of Holdings:	~1500
Number of Countries	~40

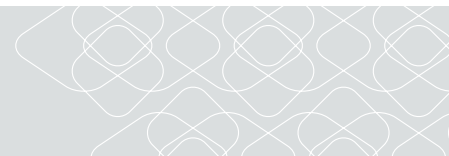
Parametric Structured Emerging Markets Target Model\*



S&P/IFCI Index\*



\*Data as of 6/30/07



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### About Parametric

Parametric is the 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 (US, Non-US, Global Tax-Managed Core™), options strategies (Delta-Shift™) and overlay portfolio management (OverlayOne™).

### Total AUM (8/30/2007):

\$24.7 Billion

### Established:

### Disclosures

This information should not be considered investment advice or a recommendation to buy or sell any particular security. The information in this material and specific securities mentioned are not representative of all securities purchased, sold or recommended for advisory clients. Actual portfolio holdings will vary for each client and there is no guarantee that a particular client's account will hold any, or all, of the securities identified. It should not be assumed that any of the securities or recommendations made in the future will be profitable or will equal the performance of the listed securities. It is not possible to invest directly in an Index. Past performance does not predict future results

Account performance is calculated using a time-weighted, daily-linked total return methodology. Dividend and interest income is accounted for on an accrual basis. Composite returns are market value weighted using beginning period values. Because Parametric manages each account to reflect client specific characteristics, accounts funded with securities and/or subject to restrictions and cash flows will experience varying performance. All results are reported gross of fees and transaction costs. Please contact Parametric for more information.

## WHAT'S NEW?

### Fundamental Indexing: The Debate Continues

Recently there have been a number of well publicized debates over fundamental indexing (FI). On the one hand are the defenders of cap-weighted indexing (CWI): Jack Bogle, Burt Malkiel, Andre Perold, and Cliff Asness. On the other side are proponents of a "noisy market" hypothesis and a new style of non-cap weighted investing: Rob Arnott and Jeremy Siegel. Below are some of the arguments for and against fundamental indexing that have been put forth.

Arguments For	Arguments Against
It can be shown mathematically that cap weighting will create a return drag relative to non-cap weighting.	Markets are close to efficient.
Fundamental Indexes are transparent, low turnover, and easy to replicate - a better way to invest passively.	FI is an active strategy, not an index.
FI is a new paradigm. It does have factor exposures; however, they are dynamic through time. For example, in 2000, RAFI was deep value with a slight small cap tilt. In 2007, it is modestly value, with a small large cap tilt.	FI is a twist on value investing.
FI has outperformed by two percent per year on average over the last 40 years.	Backtests are not persuasive. Recent history has favored small cap and value stocks. Any long-term value premium is compensation for unknowable risks.
CWI has a growth and momentum bias.	CWI is the market consensus and is factor neutral.

While the debates have been a fascinating blend of financial academics and marketing savvy, the underlying questions won't be resolved any time soon. Parametric clients can implement both cap-weighted or fundamentally-weighted indexes in a tax efficient way.