Controlling Sector Allocation Risks in Equity ETFs

Moshik Kovarsky and Leigh Eichel

EXECUTIVE SUMMARY

Sector allocation as a risk is often ignored by the novice investor. The lack of adequate tools in the past has caused many investors to look at the market as a whole or to pick and choose individual stocks. What was often neglected is the tendency of stocks within the same sector to move in unison. Overweighting a declining sector or underweighting the one on the rise (done implicitly by choosing specific stocks) can adversely affect the portfolio. The alternative of using sector funds carries the risk of owning the wrong fund at the wrong time, adds trading and tax costs and may hinder the performance as well.

Recently introduced tools make use of deep fundamental analysis to examine trends of companies within different sectors in order to provide indicators for sectors behavior. The results of using the indicators is demonstrated over the past 15+ years using extensive historical research.

SCOPE

This is a third article in a series which deals with controlling risks in equity investment with a focus on using Smart Beta ETFs. Over the past 15 years, the Smart Beta ETF industry has grown from nearly null to about half a trillion USD. The first article in the series reviewed four main risk components: Market, Sector, Currency and Stock Selection. The second article reviewed the market risk and how it can be controlled. In this article, we delve deeper into the sector risk and show how data driven tools can provide some protection against uncontrolled sector investment.

## DEMONSTRATION OF THE SECTOR ALLOCATION RISK

Sector allocation risk is defined by Morningstar® as:
"The danger that the stocks of many of the companies in one sector (like health care or technology) will fall in price at the same time because of an event that affects the entire industry".

The size of the sector risk is different in different periods, but there is always a spread between the best performing sector and the worse performing one. Charts 1 and 2 show two years with a radically different picture.

In 2007, the Energy and Materials sectors had outstanding results, with Financials and Consumers Discretionary sectors trailing badly. In 2014, the energy sector started its nose dive, caused by the rapid decline of oil prices, while healthcare and utilities rose, and tech ascending steadily.

The S&P 500 index yields the weighted average of the sectors. The sector weights in the S&P 500 range from the smallest (typically Utilities, Materials and Telecom – about 2-4%) to the largest (typically Financials and Technology – about 20%).

alphaVee

Chart 1

Chart 2
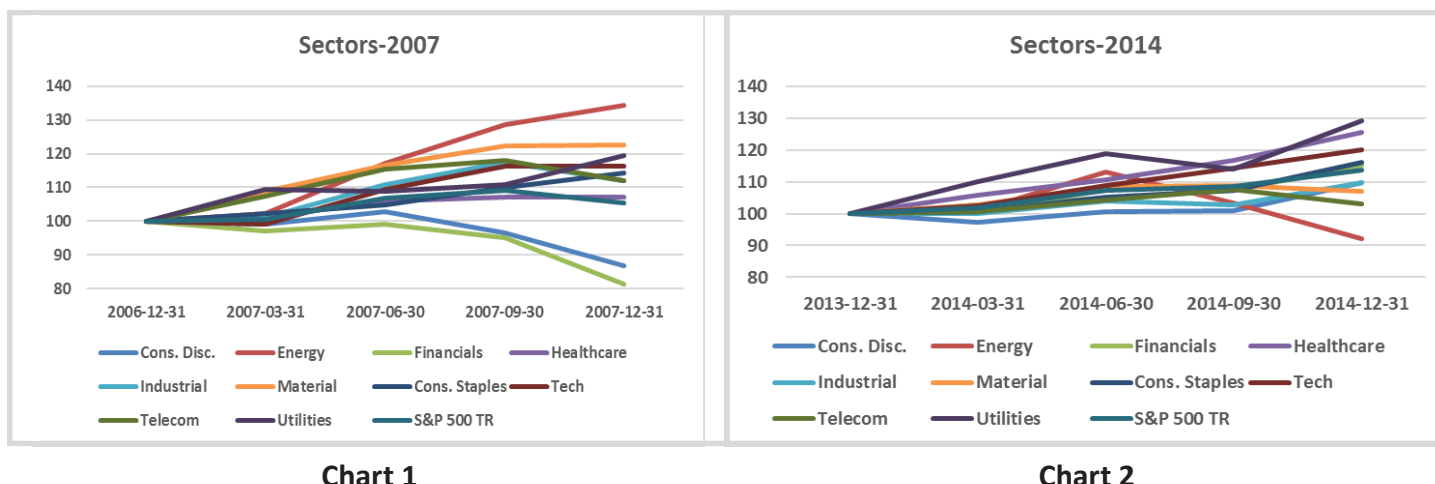
(Underlying data: S&P 500 total return sector indices)

Merely choosing "good stocks" holds the risk of having the weights significantly different than the weights in the index. The result can be good or bad – depending on overweighting the "good" sectors and underweighting the "bad" ones. However, when letting the selected stocks define the sector weights, the sector risk is left totally uncontrolled, and a good stock in a bad sector can be pulled down by its peers and underperform, regardless of its fundamentals or momentum.

As an example, consider an ETF which focuses on high dividend stocks. At certain times, such a fund can overweight significantly the Utilities, Telecom and Materials sectors which tends to pay high dividend but as of the writing of this paper hold together less than 8% of the S&P 500. Such a fund can raise this weight to more than 40%, increasing the uncontrolled sector risk.

CONTROLLING THE SECTOR ALLOCATION RISK

In order to control the sector allocation risk one has to think in a relative manner. When dealing with market risk, we usually try to predict if the market is going to be good or bad in absolute terms. When assessing sectors, one has to compare the sector to its peers. We are trying to evaluate whether the sector will do better than the weighted average of all sectors, and not make an absolute evaluation as to whether it will go up or down in absolute terms.

A recently introduced technique looks at the fundamental of a large universe of companies within each sector and analyzes their quality trend. Each sector is evaluated using factors which are suitable for the type of companies in the sector. The weights of sectors with good quality trend on average will be mark for a boost (increase their current weight in the benchmark), while sectors with bad quality trend will be under-weighted. After calculating the adjusted weight of each sector, the final weights have to be normalized so the total will equal 100%.

The magnitude of the adjustment can be controlled with a parameter, sometimes referred to as a "dimmer". A value of 0 implies no adjustment, leaving the weights as they are in the benchmark, while a value of 100 can zero the weight or double it.

alphaVee

The results of this innovative technique are quite interesting when compared to the standard benchmark. In this comparison market risk and stock selection risks were left unchecked (no hedging and using standard sector indices). The research showed that most of the improvements stem from under-weighting the bad sectors.

Charts 3 and chart 4 show the 2007 and 2014 which were demonstrated before and the effect of sector allocation risk control:
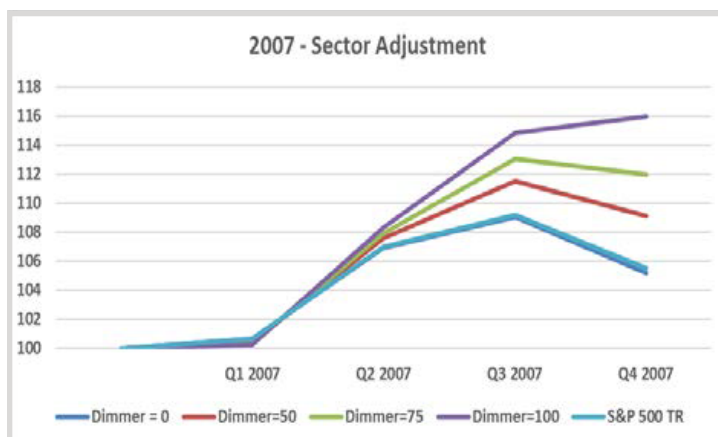

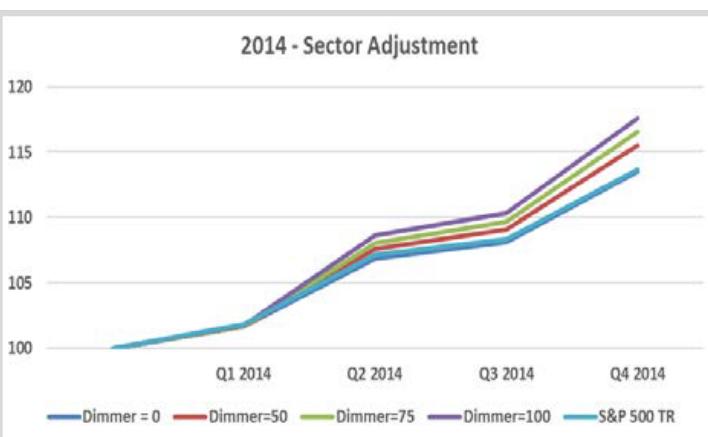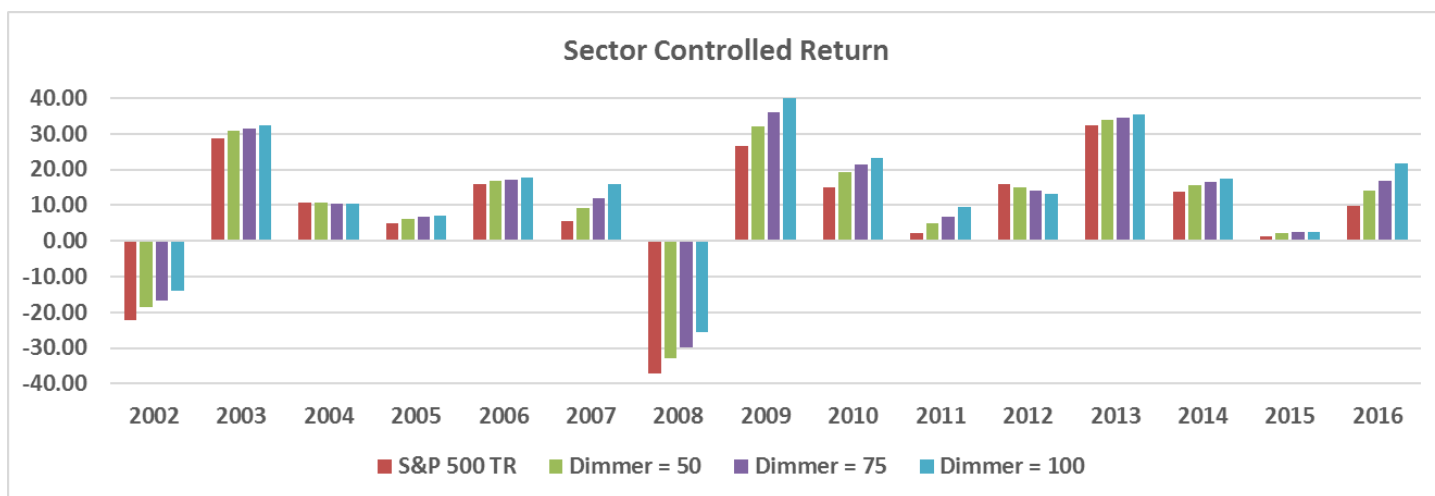**Chart 3**   **Chart 4**

(Underlying data: S&P 500 total return sector indices and Alpha Vee)

The sector control approach showed positively in almost every year over the last 15 years (2012 being a notable exception).

The application of the sector allocation risk control is dependent on the risk appetite of the investor. On top of the obvious selection of higher dimmer value for higher risk and typically higher returns, a savvy user can limit the top and bottom weight for each sector, providing guardrails for unusual situations.

SUMMARY

Sector allocation risk is an extremely important component in risk evaluation. Though it cannot always be predicted correctly, using sound fundamental data to control this component can greatly improve the ETF performance, which is a key for increasing the AUM invested in the fund. Sector allocation control can be adjusted per the investor appetite for risk, thus providing multiple solutions for the different types of investors. The ETF issuer has today the right tools to generate these type of Smart Beta funds at a very low cost.

Moshik Kovarsky is the CEO of Alpha Vee Solutions Ltd.
With 40 years of experience in Mathematical Algorithms, Computer Science, management and a successful IPO, Moshik co-founded Alpha Vee to introduce deep data analysis to the world of equity investment. Moshik can be reached via email at moshik@alphaVee.com

Leigh J. Eichel is the President of Alpha Vee Solutions Inc.
With over 25 years of experience in Product and Sales Management, Leigh co-founded Alpha Vee and manages international operations. Leigh can be reached via email at leigh@alphaVee.com

Alpha Vee is a global independent ETF strategist.
Alpha Vee licenses a wide range of dynamic and smart beta indices to leading asset managers for global distribution. Based in Israel with a wholly owned USA subsidiary also offers Its technology for limited SaaS research license use. For more information on the web at www.alphavee.com or email at info@alphavee.com