

## Diversification Dashboard – 31/05/2013

	<i>DR<sup>2</sup> - Index diversification</i>	<i>DR<sup>2</sup> - Maximum diversification</i>	<i>% diversification used by index</i>	
TOBAM's Diversification Ratio (DR) <sup>1</sup> measures to what extent a portfolio is diversified. The DR <sup>2</sup> (square of the diversification ratio) measures the number of effective degrees of freedom to which a portfolio is exposed. As the table shows, the "broad market" indices leave diversification on the table. In addition to a snapshot of each market's DR <sup>2</sup> , the table shows the DR <sup>2</sup> of a well-diversified portfolio, and the fraction of available diversification used by the index.	<b>MSCI EMU</b>	2.22	6.91	32.2%
	<b>MSCI US</b>	3.01	9.64	31.2%
	<b>MSCI UK</b>	2.78	4.78	58.2%
	<b>MSCI Japan</b>	2.42	6.54	37.0%
	<b>MSCI World</b>	4.09	18.07	22.7%
	<b>MSCI Australia</b>	3.06	6.34	48.3%
	<b>MSCI Pacific ex-Japan</b>	2.91	7.62	38.2%
	<b>MSCI Canada</b>	3.87	7.95	48.6%
	<b>MSCI Emerging</b>	5.21	11.53	44.3%
	<b>MSCI All Countries</b>	4.41	18.66	23.6%

### Toward a "new normal"?

Through the first half of May, global equity markets had glided into the year, propelled by the quasi-certainty that the Fed and the BoJ would continue to accommodate markets until they were solidly back on the rails of growth. Over the same time, economic measures pointed to improvement in the US job market, global consumer demand and other factors; as expected, central bankers began to signal their intent to "taper" the pace of quantitative easing. Instead of interpreting this message as a vote of confidence in the global economy, market waters turned choppy. 10-year Treasury yields reached their highest level in over a year, and market volatility (as indicated by the CBOE SPX "VIX" volatility index) shot up after reaching a six-year low in mid-March, not seen since February 2007<sup>2</sup>.

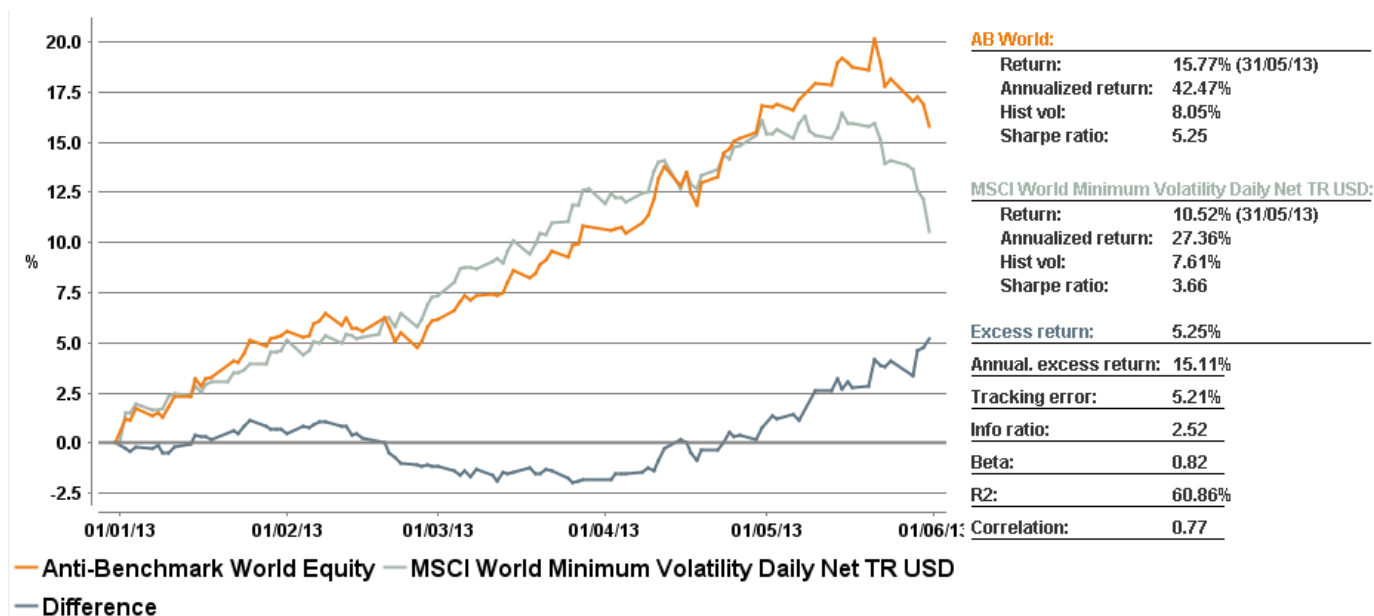
As such, May seemed to straddle a transition from low volatility back to levels closer to historical averages. Examining how different investment strategies fared during this shift reveals to what extent these strategies access the growth that can accompany relatively higher volatility.

<sup>1</sup> TOBAM's Diversification Ratio measures a portfolio's or index's diversification. It is supported by original research and is based on a mathematical definition of diversification. TOBAM's "Anti-Benchmark" Most Diversified Portfolio<sup>®</sup> maximizes this Diversification Ratio. Maximizing diversification within a universe of securities provides a result closer to the true market risk premium from that universe. "Maximum Diversification<sup>®</sup>" and "MaxDiv<sup>®</sup>" are registered trademarks of TOBAM.

<sup>2</sup> Source : TOBAM, Bloomberg. On March 14, 2013 the VIX stood at 11.3. The previous low was recorded on February 26, 2007 as the VIS registered 11.15, marking the end of the stretch of low volatility which averaged between 01/2005 and 02/2007.

Below, we compare performance between the Anti-Benchmark World Equity portfolio and the MSCI Minimum Volatility index.

### Global Equity performance: Maximum Diversification vs. Minimum Volatility



Source: TOBAM

Year-to-date, and more particularly in May, the AB World portfolio has outperformed the MSCI Minimum Volatility index because the AB World chooses from an opportunity set that is not biased toward low volatility stocks. The “AB” focuses on finding the stocks that are least correlated to each other, and adjusts their weights for volatility. As indicated in the chart below, the portfolio’s weighted average single stock volatility is higher than that of the MSCI World benchmark, but overall portfolio volatility is lower than the index, which the AB outperforms as a result of diversification across the least-correlated constituents.

### Single Stock Volatility vs. Portfolio Volatility Year ending May 31, 2013

	MSCI World index	Anti-Benchmark World portfolio	MSCI World Min Vol index
<b>Portfolio Volatility</b>	11.3%	7.3%	5.2%
<b>Weighted average single stock Volatility</b>	23.1%	31.2%	19.7%
<b>Diversification Ratio squared</b>	4.09	18.07	14.25

Source: TOBAM, Bloomberg

Regardless of market sentiment, it is impossible to predict whether May marked the turning point toward a “new normal” for global markets, but it certainly turned on the volatility spigot and reintroduced the notion that risk is accompanied by reward. Indeed, global equity strategies that embraced volatility selectively, such as the Anti-Benchmark Most Diversified Portfolio, fared better than strategies seeking to avoid volatility.

## For more information

TOBAM is an asset management company offering innovative investment capabilities whose aim is to maximize diversification. TOBAM's flagship Anti-Benchmark® strategies, supported by original research and a mathematical definition of diversification, provide clients with diversified core equity exposure, both globally and in domestic markets. FTSE also publishes the FTSE TOBAM Maximum Diversification Index Series based on the Anti-Benchmark equity portfolio construction methodology. The company manages more than \$4.4 billion via its Anti-Benchmark strategies for institutional clients worldwide. Its team includes seventeen financial professionals.

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