

## Diversification Dashboard - 30/06/2013

TOBAM's Diversification Ratio (DR)<sup>1</sup> measures to what extent a portfolio is diversified. The DR2 (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 DR2, the table shows the DR<sup>2</sup> of a well-diversified portfolio, and the fraction of available diversification used by the index.

	DR <sup>2</sup> - Index diversification	DR <sup>2</sup> - Maximum diversification	% diversification used by index
MSCI EMU	2.22	6.95	32.0%
MSCI US	3.09	9.49	32.6%
MSCI UK	2.65	4.25	62.4%
MSCI Japan	2.28	5.99	38.1%
MSCI World	4.09	15.13	27.0%
MSCI Australia	3.00	5.62	53.3%
MSCI Pacific ex-Japan	2.79	6.76	41.2%
MSCI Canada	3.92	7.27	53.9%
MSCI Emerging	4.82	9.48	50.8%
MSCI All Countries	4.37	15.52	28.1%

## 2<sup>nd</sup> Anniversary Update – Diversification in Emerging Markets

After a bull market in 2012, global emerging markets equities (MSCI Emerging Markets index) have lost close to 10% year to date through June 28, 2013. Headwinds of uncertainty – about the current and prospective impact of slowing growth in China, political turmoil in Brazil and Turkey, and how the Fed's promised "tapering" would affect global liquidity and demand – have led emerging markets to lag global developed market performance during the first and second quarters of 2013.

## 1. Diversification delivered strong and consistent performance, despite uncertainty

Despite the lack of visibility for emerging markets as an asset class, TOBAM's Anti-Benchmark Emerging Markets Equity strategy was able to consistently outperform in both up and down market environments. Today, at the two-year anniversary of the portfolio's launch on June 29, 2011, the strategy's assets have more than tripled to \$658 million. The strategy has achieved its objective of capturing the emerging markets equity risk premium with lower risk, by applying TOBAM's patented Anti-Benchmark one-step optimization methodology to maximize diversification across the investment universe. For the inception-to-date period, the two years ended June 28, 2013, the strategy has outperformed the MSCI EM benchmark by 5.82% (annualized), with close to 18% less volatility, as detailed below:

#### TOBAM Anti-Benchmark Emerging Markets Equity strategy

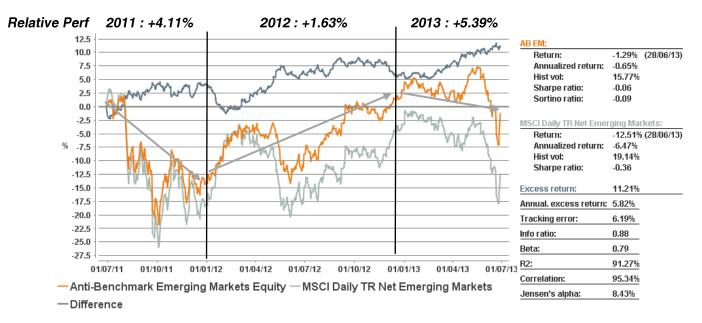
USD 29/06/2011-28/06/2013	Anti-Benchmark Emerging Markets	MSCI TR Net Emerging Markets	Improvement
Annualized Performance	-0.65%	-6.47%	5.82%
Volatility	15.77%	19.14%	-17.61%
Sharpe Ratio	-0.06	-0.36	
TE / MSCI EM	6.19%		

<sup>&</sup>lt;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® 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®" and "MaxDiv®" are registered trademarks of TOBAM.



Further decomposing these past 24 months into three periods, namely: (1) a down market (July-December 2011), (2) an up market (January-December 2012) and (3) a down market (January – June 2013), we see that **the AB EM portfolio has delivered outperformance with lower risk across bull and bear markets:** 

# Anti-Benchmark Emerging Markets Equity strategy Performance since inception (USD, gross of fees)

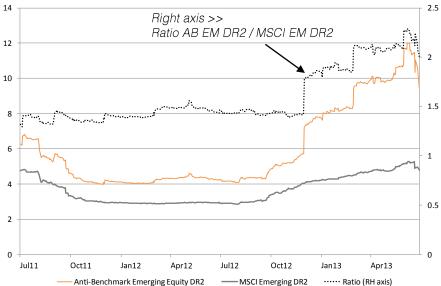


Source: TOBAM. Returns are gross of fees and stated in USD. Returns reflect the TOBAM Anti-Benchmark Emerging Markets Share Class A USD Fund (AB) from Jun 29, 2011 to date. Past performance is not indicative of future results.

## 2. AB Emerging: twice as diversified as MSCI EM...and a better diversifier vs. MSCI World

Most investors associate emerging markets – rife with geopolitical, sector and idiosyncratic risk – with potentially higher returns, but higher risk. Despite the uncertainty and lack of direction currently plaguing emerging markets, TOBAM believes that this multitude of risk factors makes for a greater diversification potential.

## Diversification Ratios Squared: AB Emerging Markets Equity vs. MSCI Emerging Markets



Although levels of diversification have declined recently as correlations rose over the quarter, the diversification gap between the cap-weighted index and the Anti-Benchmark is still structurally consistent.



#### 2.1 ...and a better diversifier vs. MSCI World

Most investors would not question the benefits of allocating to Emerging Markets for diversification, but the table below shows that reaping the entire diversification potential of Emerging Markets requires going further than the MSCI index. The table compares correlations among the MSCI World and MSCI Emerging Markets indices, and the AB Emerging Markets portfolio:

# Global and emerging markets equities correlations: Anti-Benchmark Emerging Markets vs. the MSCI EM and MSCI World

Year ending June 28, 2013 (daily data)

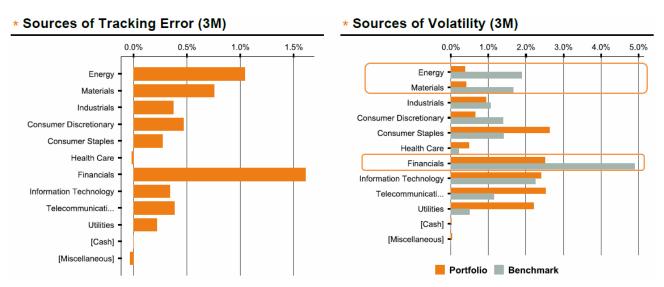
Investment Universe	MSCI World	MSCI Emerging	AB EM
MSCI World	100%		
MSCI Emerging	70%	100%	
AB Emerging	61%	93%	100%

The MSCI Emerging Markets index's 70% correlation to the MSCI World index is significantly higher than the 61% correlation between the AB Emerging Markets portfolio and the MSCI World. This can be attributed to the MSCI Emerging Markets index's high exposure to two of the most globally-influenced industry sector groups, Financials and Energy/Materials. It should be no surprise that these sectors account for over 55% of index volatility, a trend similar to that seen in developed equity markets.

## 3. Emerging equity benchmark: concentrated "bets"

In order to identify benchmark risk concentration, the charts below compare sources of volatility and sources of tracking error for the benchmark and the Anti-Benchmark. Both graphs illustrate that the benchmark continues to harbor significant concentrations in Financials, and to a lesser extent Energy/Materials. Moreover, the portfolio has remained less exposed to the benchmark's main "bets" as revealed in the main sources of tracking error:

## Anti-Benchmark Emerging Equity strategy vs. MSCI Emerging Index Three months ended June 28, 2013



The AB Emerging Markets portfolio, which explicitly seeks to avoid such biases, is thus significantly more diversifying than the MSCI Emerging Markets index. Choosing emerging markets for diversification and performance should imply choosing a truly diversified emerging markets portfolio to ensure that the two objectives are met. Selecting the most diversified mix of stocks in a given universe should be a rewarding strategy regardless of changing market dynamics.



## 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 \$4.3 billion via its Anti-Benchmark strategies for institutional clients worldwide. Its team includes eighteen financial professionals.

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