

Diversification Update at 31/10/2012

TOBAM's Diversification Ratio $(DR)^1$ measures to what extent a portfolio is diversified. The DR² (square of the diversification ratio) corresponds to the number of independent degrees freedom in a particular portfolio - or the number of independent variables at work. 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 DR2 of a welldiversified portfolio, and the fraction of available diversification used by the index.

	DR ² - Index diversification	DR ² - Maximum diversification	% diversification used by index
MSCI EMU	1.92	5.55	34.6%
MSCI US	2.40	6.57	36.6%
MSCI UK	2.25	3.75	60.0%
MSCI Japan	2.61	9.06	28.8%
MSCI World	2.86	7.35	38.9%
MSCI Australia	2.23	4.85	45.9%
MSCI Canada	3.06	7.27	42.1%
MSCI Emerging ²	3.68	5.19	70.9%

UK Equities: A diversified economy hidden by a concentrated benchmark

The UK equity market (as represented by the MSCI UK) has proved resilient year to date, returning 7.41% through October 31, 2012. Year to date through October 31, 2012, the Most Diversified Portfolio for UK Equities has significant outperformed the MSCI UK market cap-weighted index while reducing volatility. For this period, the Anti-Benchmark UK outperformed the MSCI UK by 752 bps gross of fees and decreased volatility by over 20%, by maximizing diversification:



¹TOBAM'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.

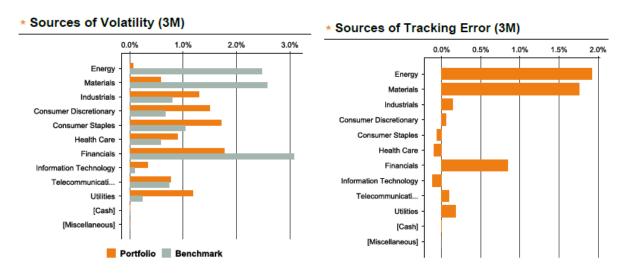
² The Anti-Benchmark Emerging Markets Equity strategy filters the reference index to the 200 largest market capitalizations.



UK equities: a concentrated index sector wise...

The following graph breaks down the risk contributors for the MSCI UK index and for the corresponding Anti-Benchmark portfolio. It is clear that the MSCI UK benchmark in particular is dominated by large multinational players in the commodities, financial and telecom industries. (HSBC, Vodafone, BP...) For instance, the top ten stocks in the 111-member MSCI UK index represent 45% of the index!

MSCI UK index vs. AB UK strategy as of 31.10.2012

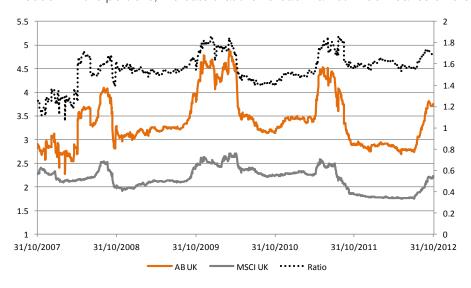


Data as of October 31, 2012

...but a diversified market with numerous opportunities to add value:

Diversification Ratios Squared* - AB UK vs. MSCI UK

The diversification gap between the MSCI UK index and the AB UK portfolio comes as no surprise. A quick glance at index vs. portfolio DR²s, which correspond to the number of independent degrees of freedom in the portfolio, indicate that the "broad market" index leaves diversification on the table.



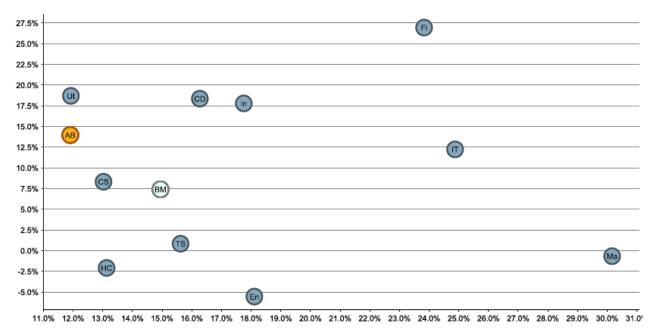
The difference between the DR² for the AB UK and for the cap-weighted benchmark is particularly striking: the AB UK portfolio taps into almost twice as much diversification as the benchmark. The AB UK portfolio's DR² of 3.75 is impressive compared to only 2.25 for the MSCI UK: the cap-weighted benchmark accesses only 60% of available diversification.



The DR² (square of the diversification ratio) corresponds to the number of independent degrees of freedom in a particular portfolio – or the number of independent variables at work.

In short, the underlying message is that the UK equity market is more diversified than its "representative" benchmark. As a case in point, the AB UK portfolio allows investors to diversify their holdings across sectors that provide additional diversification and which are underrepresented in the index, namely the Consumer Staples and Consumer Discretionary sectors. As a result, even though the AB may hold a significant underweight in the Financials sector, which outperformed most other sectors year to date, the portfolio still managed to outperform its index by a large margin, as it taps into diversification from other sources across the UK economy:

Risk/Return Sectors year to date as of 31.10.2012 MSCI UK index (BM) and AB UK strategy



Sector Risk & Return: The Ex-post percentage Returns and Annualized Volatilities YTD as of 31/10/2012. The Anti-Benchmark UK strategy (AB) and MSCI UK Index (BM) are represented, along with the following GICS MSCI Sectors: Consumer Discretionary (CD), Consumer Staples (CS), Energy (EN), Financials (FN), Health Care (HC), Industrials (IN), Information Technology (IT), Materials (MT), Telecom Services (TS) and Utilities (UT). The Volatilities are estimated using daily data over the full year. Returns are in GBP.



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 over \$2.6 billion via its Anti-Benchmark strategies for institutional clients worldwide. Its team includes seventeen financial professionals.

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