Diversification Dashboard – 31.10.2013, REEB

TOBAM's Diversification Ratio (DR)[1] 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 DR² of a well-diversified portfolio, and the fraction of available diversification used by the index.		***DR² - Index diversification***	***DR² - Maximum diversification***	***% diversification used by index***
	MSCI EMU	2.70	8.39	*32.2%*
	MSCI US	3.29	9.45	*34.8%*
	MSCI UK	2.78	5.18	*53.6%*
	MSCI Japan	2.09	5.55	*37.6%*
	MSCI World	4.82	17.54	*27.5%*
	MSCI Australia	2.68	5.08	*27.5%*
	MSCI Pacific ex-Japan	2.74	6.96	*39.3%*
	MSCI Canada	4.51	9.13	*49.4%*
	MSCI Emerging	5.10	10.35	*49.3%*
	MSCI All Countries	5.34	18.98	*28.1%*

Following the market introduction of a stock: case study on Facebook.

Using the introduction of Facebook in the Anti-Benchmark World strategy as a case study, this Dashboard illustrates how a stock is introduced to the AB portfolio, as well as the rebalancing mechanisms during its holding period in the portfolios. This case study aims to demonstrate:

- How the core principles underpinning TOBAM's methodology are applied, ensuring that all the benefits of diversification are realized;
- How portfolio implementation happens, with formulas translated into concrete portfolio decisions
- How the AB strategy avoids the traps of the market cap-weighted approaches

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1. Background: the Facebook stock offering

Facebook's May 18th, 2012 IPO, priced at $38 per share to value the company at more than $100 billion, was one of the largest and most-anticipated in the Technology sector, but the technical glitches and resulting lawsuits surrounding the IPO plagued the stock for some time following the IPO, leading some to conclude that the company was overvalued to begin with. However, once the company announced in July '13 that it had beat 2nd quarter earnings expectations, the stock shot up, doubling in only three months.

Chart1: FB stock price

Source: Bloomberg

[1] 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.

2. Criteria for inclusion in the most Diversified Portfolio

In order for a security to be eligible to enter the portfolio, the Anti-Benchmark process requires a year of price history (in actual trading days this minimum corresponds to 250 days). Following Facebook's (FB) IPO, the stock was included in the MSCI indices on May 31st, 2012.

FB became eligible for inclusion in the portfolio from May 18th, 2013, thus eligible for the June rebalancing of the Anti-Benchmark World strategy. The test question for inclusion in the portfolio for the 'new' stock was to offer diversifying properties compared to the existing portfolio. FB satisfied this requirement: at the end of May 2013, FB's correlation to the AB World portfolio was 2.75%:

Table 1: Facebook and AB world prior to introduction in the portfolio, 1year rolling statistics

FACEBOOK INC-A:		
Return:	-38.63% (29/05/13)	
Annualized return:	-37.72%	
Hist vol:	55.44%	
Sharpe ratio:	-0.68	
Sortino ratio:	-1.15	
AB World:		
Return:	23.75% (29/05/13)	
Annualized return:	22.95%	
Hist vol:	8.43%	
Sharpe ratio:	2.71	
Excess return:	-62.38%	
Annual. excess return:	-60.67%	
Tracking error:	55.86%	
Info ratio:	-1.10	
Beta:	0.18	r² 0.08%
Correlation:	2.75%	

Source: TOBAM

In this table, the only statistic relevant for including FB in the portfolio is the 2.75% correlation. The weight allocated to FB is a function of the stock's correlation and volatility. FB's volatility was 55% while the AB World portfolio's volatility was 8.4%. This illustrates that the Anti-Benchmark does not have a low volatility bias.

Unlike market cap strategies, when **selecting** a stock into an AB portfolio, ***momentum and absolute risk characteristics do not bias the decision making process***.

3. Contribution to the portfolio

After FB was included in the AB World portfolio, Chart 2 below tracks FB's performance (orange line) compared to the overall AB World portfolio (grey line).

Chart 2: Facebook and AB world after inclusion in the portfolio

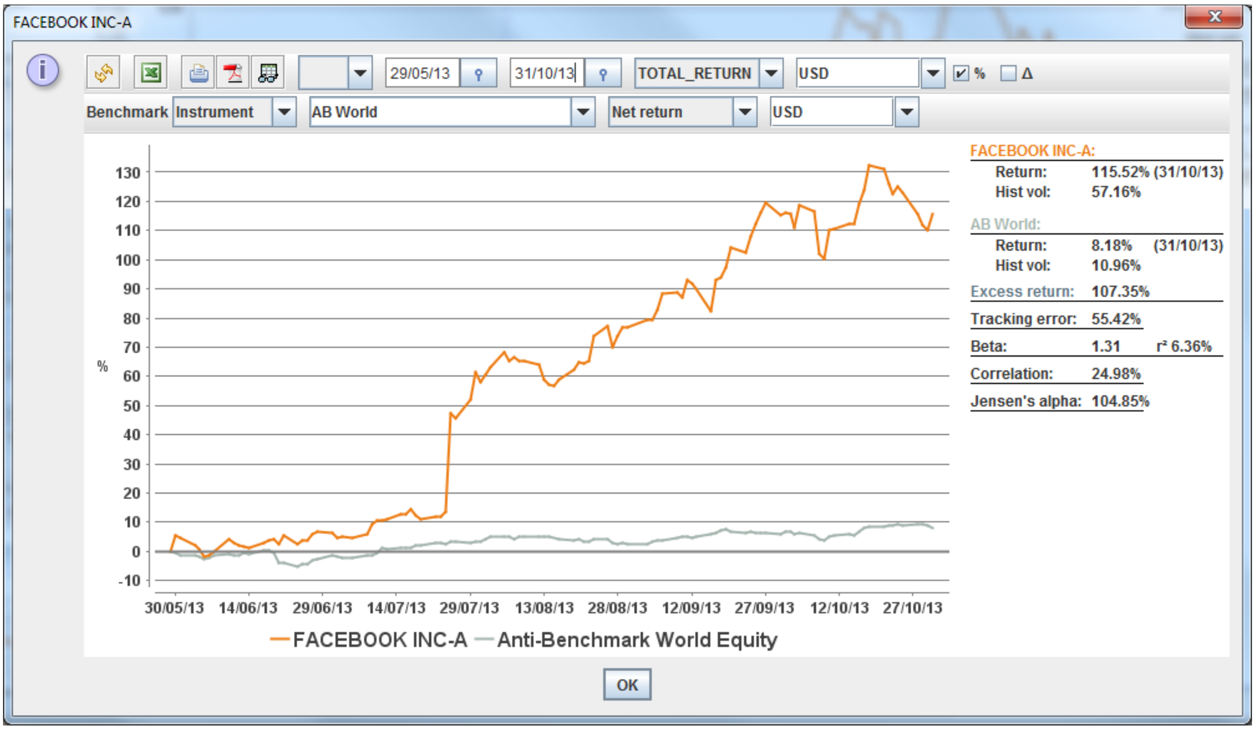
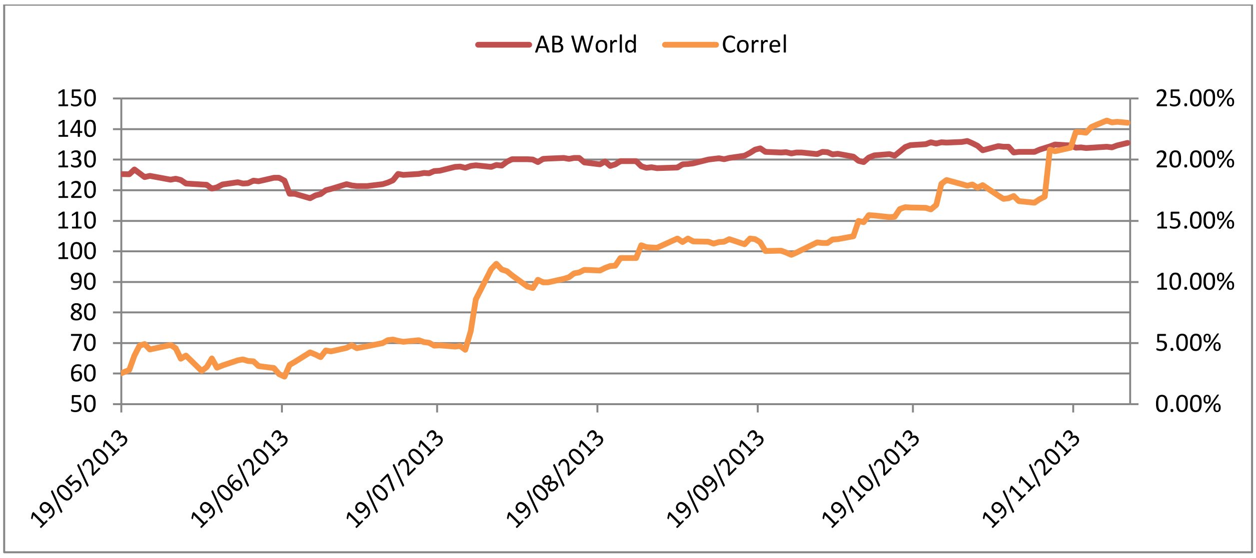


Chart 2 illustrates that, following the announcement of Q2 better-than-anticipated earnings, FB was a strong contributor to portfolio performance in Q3.

Chart 3: Rolling correlation of FB to the AB World portfolio following its introduction



FB's correlation to the AB World portfolio has remained low, ranging between 2% and 25% since FB was purchased.

The properties satisfied when a stock is introduced are still valid once the stock is held in the portfolio - ensuring that the Anti-Benchmark portfolio retains consistent characteristics over time.

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 $4.9 billion via its Anti-Benchmark strategies for institutional clients worldwide. Its team includes 20 financial professionals.

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