Optimization of Smart Beta Allocation by Momentum Exposure

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Abstract : Smart Beta strategies intend to be an asset management revolution with reference to classical cap-weighted indices. Indeed, these strategies allow a better control on portfolios risk factors and an optimized asset allocation by taking into account specific risks or wishes to generate alpha by outperforming indices called 'Beta'. Among many strategies independently used, this paper focuses on four of them: Minimum Variance Portfolio, Equal Risk Contribution Portfolio, Maximum Diversification Portfolio, and Equal-Weighted Portfolio. Their efficiency has been proven under constraints like momentum or market phenomenon, suggesting a reconsideration of cap-weighting. To further increase strategy return efficiency, it is proposed here to compare their strengths and weaknesses inside time intervals corresponding to specific identifiable market phases, in order to define adapted strategies depending on pre-specified situations. [Results are presented as performance curves from different combinations compared to a benchmark. If a combination outperforms the applicable benchmark in well-defined actual market conditions, it will be preferred. It is mainly shown that such investment 'rules', based on both historical data and evolution of Smart Beta strategies, and implemented according to available specific market data, are providing very interesting optimal results with higher return performance and lower risk.] Such combinations have not been fully exploited yet and justify present approach aimed at identifying relevant elements characterizing them.

Keywords : smart beta, minimum variance portfolio, equal risk contribution portfolio, maximum diversification portfolio, equal weighted portfolio, combinations

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