

VettaFi Generic Factor Algorithm Weighting Methodology

Key Parameters

Max Weight of a Security

- Defines the maximum weight a single security can hold within the index.

Max Multiple:

- The multiple by which a security can be added to the factor index based on its weight in the underlying benchmark universe.

Max Sector Variance

- Range by which the weight of a sector within the factor index can deviate from the underlying benchmark.

Min ADV (Minimum Average Daily Value)

- This liquidity minimum mandates a security must surpass this minimum to qualify for the universe. If this parameter is null or zero, there is no minimum liquidity.

Bottom Factor Cutoff

- Indicates the lowest percentile score relative to other companies within the index that a security can achieve to remain a constituent member. This parameter ensures high factor companies and reduces turnover.

Methodology

1. Sorting and Ranking Factors

- Factors scores and percentiles are computed
- The percentage of a factor is based on their rank within a sector or the universe.

2. Removal of Low-Scoring Companies

- Companies with a percentile score lower than the bottom factor cutoff are removed from the index during a reconstitution cycle. This ensures high-quality factors remain and reduces turnover.

3. Baseline Treatment for Retained Companies

- If a company maintains its factor value above the bottom factor cutoff, its target weight is set to its current weight within the factor index. This baseline can be adjusted based on sector weights and other factors.

4. Max Target Weight Calculation

- The maximum company weight is the benchmark security weight multiplied by the max multiplier parameter.
- If the calculated maximum-security weight exceeds the index maximum weight parameter, the security maximum weight is set to the index maximum weight.
- Optionally, a company's factor percentile ranking can be applied to adjust a security's factor multiplier.

5. Assessing Overweight Sectors

- If a sector is overweight, it is brought down to its maximum sector weight (benchmark sector weight plus the max sector variance) by dropping the lowest factor scoring companies within the sector until the maximum sector weight is reached.
- For indexes which utilize volatility factors, sector weight may be a function of the average of underlying sector weight and relative inverse sector volatility.

6. Adding Weight to Underweight Sectors

- For underweight sectors, the target weight of existing constituents is increased to their maximum allowed weight.
- If the minimum sector weight is not reached through this methodology, new companies are added to satisfy the minimum sector weight.

7. Filling the Portfolio to 100% Target Weight

- Companies are added in rank order at their max target weight until the total target weight of the portfolio reaches 100%.
- The amount added to each security is minimum (maximum company weight, maximum sector weight – current sector weight, 100% - the total portfolio weight).
- Note: Companies from sectors that are under their sector minimum weight are added first until all sectors have reached their minimum weight.