RAFI™ Indices Quarterly Staggered Rebalancing ('QSR') Methodology

Introduction

RAFI Indices employs a rebalancing technique known as Quarterly Staggered Rebalancing ('QSR') to increase strategy capacity, lower transaction costs, and mitigate entry point risk. The QSR methodology distributes index rebalancing trades over four distinct periods throughout the year rather than executing them fully on a single day. This approach benefits the portfolio by (A) Diversifying against the specific entry point risk of trading on a particular date and (B) Reducing market impact costs by decreasing the proportion of the portfolio trading on a given date. Lower transaction costs improve realized performance and increase the investible capacity of the strategy.

How QSR Works

The QSR methodology enhances the robustness of long-horizon strategies by minimizing the impact of market shocks. In fundamentally weighted strategies, more frequent rebalancing does not meaningfully change the return and volatility characteristics; in fact, on-margin, some returns may be lost as the rebalances trade against intra-year momentum. However, it naturally leads to higher turnover and consequently increased transaction costs, diminishing performance and strategy capacity. While annual rebalancing is effective, chance events can significantly influence the portfolio. For instance, a Fundamental Index strategy that rebalanced in March 2009, as undervalued securities began an incredible rally, would show a notably different return profile compared to a fundamental strategy that rebalanced later in the year.

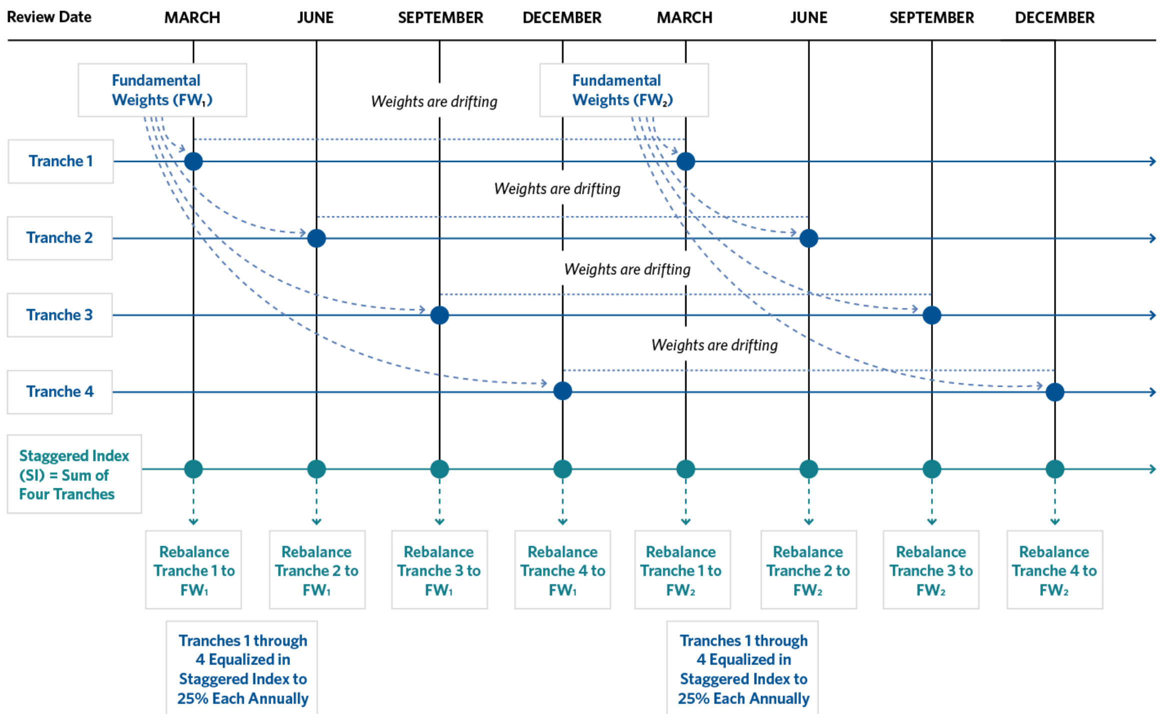
Table 1: Impact of Rebalance Frequency on Performance and Turnover.

	RAFI Fundamental US				RAFI Fundamental Global			
Rebalance Frequency	Annualized Return	Annualized Volatility	Sharpe	Turnover	Annualized Return	Annualized Volatility	Sharpe	Turnover
Quarterly	13.08%	15.12%	0.65	21.1%	11.60%	15.12%	0.55	22.9%
Annually	13.07%	14.85%	0.66	10.9%	11.65%	14.87%	0.56	12.1%
QSR	13.09%	14.81%	0.66	11.4%	11.70%	14.80%	0.57	12.5%

Index strategies above are reconstituted annually in March and rebalanced on the given frequency. Performance calculated for 4/1984 – 9/2024. Turnover is the average annual turnover from 3/1985 – 3/2024. Data above is simulated using Worldscope and Datastream. Please see important disclosure about simulated data at the end of this paper.

QSR does not entail more frequent rebalancing. QSR involves an annual rebalance conducted four times each year. It is implemented by reconstituting a strategy annually with target weights for each security set once a year. QSR operates by dividing a strategy portfolio into four distinct tranches: A, B, C, and D, with each tranche representing a fully-fledged model portfolio holding equal weight (25% each) in the overall strategy portfolio. Each tranche is traded once a year, with one tranche being rebalanced each quarter. Figure 2 illustrates this process. In the first quarter only tranche A is rebalanced, while the weights of holdings in tranches B, C, and D drift with market movements. In the following quarter, tranche B will be rebalanced to target weights, while the weights of holdings in tranches A, C and D continue to drift with market fluctuations. The same process would be applied to tranches C and D in the third and fourth quarters respectively.

Figure 1: Implementation of Quarterly Staggered Rebalancing



For illustrative purposes only.

Practically, one can consider the strategy as reconstituting once a year with target weights set at the March Rebalance. The strategy trades toward these reconstituted target weights by rebalancing one tranche each quarter, while allowing the other tranches to drift. Most RAFI Indices strategies are rebalanced on the third Friday of March, June, September, and December. Companies that are added or removed from the index due to changes in fundamental measures will be added or removed over the course of the year.

Conclusion

The QSR methodology is a strategic approach designed to optimize index rebalancing by distributing the process across multiple periods within a year. This diversifies entry point risk and enhances investment capacity by lowering trading costs, making it an important technique for mitigating the real impact of drag from transaction costs.

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