

Index Research and Design | Index Ideas

Introducing FTSE Russell Target Diversification

June 2025



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Target Diversification framework, a breakthrough solution for today's increasingly concentrated market environment

Target Diversification is a newly launched methodology that directly addresses the fundamental challenge that has faced index investors for decades: how to achieve meaningful diversification without sacrificing market representativeness.

The Target Diversification Framework represents FTSE Russell's latest advancement in index design, offering precise calibration of diversification levels while maintaining essential market characteristics. As concentration in major indices reaches unprecedented levels, this framework arrives at a critical moment, providing investors with a powerful new tool to manage concentration risk strategically.

The approach delivers customisable diversification with lower tracking error, reduced turnover, and improved portfolio efficiency compared to traditional methodologies. For the first time, investors can specifically target their desired level of diversification with precision—achieving the optimal balance between representation and risk reduction.

Reconciling diversification and market representativeness

Strategic management of concentration Risk

Customisable and efficient



The historical trade-off challenge: Diversification vs. representativeness

For more than a century, the equity indexing industry has grappled with a fundamental tension between two competing objectives: diversification and market representativeness. This challenge has shaped the evolution of indexing methodologies through distinct historical phases, each attempting to balance these critical priorities, yet none fully resolving the inherent trade-off.

The earliest price-weighted indices of the 1880s represented the original approach to index construction but prioritised neither objective effectively. These indices overweighted high-priced shares regardless of their economic importance, creating portfolios that were neither truly representative nor optimally diversified.

The development of market-cap weighting in the 1920s-1970s marked a significant advance by maximising market representativeness. This approach weighted companies according to their economic footprint, creating a more accurate reflection of the market's structure. However, it often concentrated risk in a handful of dominant firms—a limitation that became increasingly problematic in markets dominated by a small number of mega-cap companies.

Further refinements emerged in the 1980s-1990s with the introduction of free-float adjustments, which exclude shares held by controlling interests, governments, or strategic investors. The FTSE 100 Index, launched in 1984, initially used full market capitalisation, but FTSE led innovation in this area by implementing free-float adjustments to its indices in 1999, ahead of many competitors. These improvements aimed to better reflect actual investable capacity and avoid overweighting companies with limited tradable shares, particularly in emerging markets where government ownership was common. Despite these enhancements, the concentration issue persisted.

The equal-weighting approach that gained prominence from the 1970s-2000s moved in the opposite direction, optimising diversification by treating all components identically. While this method succeeded in spreading risk, it created significant divergence from the actual market structure. Russell's family of indices, founded in 1984 with the Russell 1000 and Russell 2000, while primarily market-cap weighted, helped investors think more systematically about size exposure. FTSE Russell launched an equal weight version of the Russell 1000 in 2013 to address diversification concerns. More recently, in response to unprecedented concentration in major indices, FTSE Russell reintroduced and enhanced capping methodologies through the Russell Capped Index Series, which imposed maximum weight thresholds on individual constituents to limit concentration risk while maintaining much of the market-cap structure.

Throughout this evolution, the industry has faced a persistent dilemma: market-cap approaches accurately reflect where capital is allocated but can lead to dangerous concentration when a few companies dominate, while equal-weighted methods provide superior diversification benefits but fail to represent the true economic landscape of the market. Each approach excels in one dimension while compromising the other, forcing investors into a binary choice between competing priorities.

The evolution of indexing

Price indices

Market capitalisation weighted indices

Free-float adjustments

Equal-weighted indices

Something else is needed

Introducing the FTSE Russell Target Diversification framework: Solving the representativenessdiversification challenge

The Target Diversification Framework is a breakthrough advancement that solves the longstanding diversification-representativeness challenge in equity indexing. This elegant methodology represents a significant leap forward in index construction, providing investors with a powerful new tool to precisely calibrate their exposure while balancing competing investment priorities.

FTSE Russell is addressing this challenge with two groundbreaking developments that will fundamentally transform how investors approach diversification in equity indexing.

The first advancement is the FTSE Russell Diversification Factor—an intuitive metric that expresses concentration in terms of equivalent equally weighted stocks. For example, a Russell 1000 index with a FTSE Russell Diversification Factor of 200 corresponds to an index that is as diversified as an equal-weighted index with 200 names. This provides investors with a clear, understandable measure of portfolio diversification that can be precisely targeted.

Building on this metric, the second component is the FTSE Russell Target Diversification Algorithm. This pioneering methodology adjusts the weights of the base index (such as the Russell 1000) to achieve the required FTSE Russell Diversification Factor. The algorithm employs a non-linear transformation specifically designed to reduce distortions in industry exposures and factor/investment style exposures while preserving liquidity.

Unlike traditional capping approaches that simply impose maximum weights on individual constituents, the Target Diversification framework offers a holistic approach to portfolio diversification. It applies a comprehensive transformation to all constituents, not just those breaching arbitrary thresholds, creating a smoother weight distribution across the entire portfolio. This approach minimises distortions to industry exposures and investment style characteristics while improving overall diversification.

The key advantage of combining these innovations is the ability to target a predefined level of diversification over time with maximum transparency. This methodology is factor agnostic and does not require complex risk models, making it highly tractable, transparent, and efficient for institutional investors seeking to precisely calibrate their exposure based on unique priorities.

The Target Diversification approach fundamentally shifts from reactive, threshold-based methodologies to a proactive, portfolio-wide diversification management framework. This provides investors with unprecedented control, transparency, and efficiency in managing the critical trade-off between market representation and diversification benefits—a balance that has eluded the industry for more than a century.

Target Diversification

The Diversification Factor

The Diversification Algorithm

Diversification with fewer distortions

Transparent, model independent, and precise

From reactive to proactive

Traditional capping vs. Target Diversification

Traditional capping approach to concentration risk

Russell indices have historically addressed concentration risk through capping methodologies, such as the Russell Capped Index Series. This approach:

- Imposes fixed maximum weights (typically 5% or 10%) on individual constituents
- · Redistributes excess weight proportionally to uncapped constituents
- Maintains periodic rebalancing to ensure caps remain in place as prices change
- Meets regulatory requirements like UCITS constraints in Europe (which limit single security exposure to 10% with aggregate 40% limit for securities >5%)

While capping addresses the most extreme concentration issues, it has significant limitations:

- Binary modification: Applies only to the largest stocks that breach a threshold, creating arbitrary distinctions
- Cliff effects: Creates potential market impact at rebalances when stocks cross the capping threshold
- Limited scope: Addresses only single-stock concentration, not broader diversification across the portfolio
- Indirect measurement: Doesn't directly measure or target the actual level of diversification
- Reactive approach: Responds to concentration after it occurs rather than proactively managing diversification

The FTSE Russell Target Diversification advantage

The FTSE Russell Target Diversification approach represents a significant advancement over traditional capping by:

- Holistic diversification: Considers the entire portfolio's diversification characteristics rather than just limiting individual stocks
- Precise calibration: The FTSE Russell Diversification Factor provides an intuitive, easily understandable metric (equivalent number of equally weighted stocks) that allows investors to target their exact desired level of diversification
- **Comprehensive transformation:** Applies a non-linear transformation to all constituents, not just those breaching arbitrary thresholds, creating a smoother weight distribution
- Preservation of characteristics: Specifically designed to minimise distortions to industry exposures and factor/investment style exposures while improving diversification
- **Transparency and predictability:** Targets a predefined level of diversification over time, reducing uncertainty in the rebalancing process
- **Model independence:** Works without requiring complex risk models, enhancing transparency and reliability
- Adaptability: Can be calibrated to different markets and conditions without changing the underlying methodology

Traditional capping has its limits

Target Diversification remains intuitive and

providing precision

simple while

The Target Diversification approach fundamentally shifts from the reactive, threshold-based capping methodology to a proactive, portfolio-wide diversification management framework. This provides investors with greater control, transparency, and efficiency in managing the critical trade-off between market representation and diversification benefits.

Taking control of diversification risk

Traditional equal weighting vs. Target Diversification

Traditional equal-weighted approach to diversification

Equal-weighted indices have long been recognised for their superior diversification benefits, providing investors with an alternative to market-cap weighted approaches. This methodology:

- Assigns identical weights to all constituents regardless of size
- Provides maximum diversification across all holdings
- Implicitly increases exposure to smaller companies
- Requires frequent rebalancing to maintain equal weights as prices change

While equal weighting maximises diversification, it comes with significant drawbacks:

- **High tracking error:** Creates substantial deviation from market-cap benchmarks, often exceeding 5-7% annually
- **Excessive turnover:** Requires frequent and substantial rebalancing to maintain equal weights, increasing trading costs and tax implications
- **Reduced liquidity:** Allocates significant portions of the portfolio to smaller, potentially less liquid securities
- Sector distortion: Often creates unintended sector tilts that diverge significantly from the broad market's economic representation
- Capacity constraints: Limits the scalability for large institutional investors due to position sizes in smaller companies

The Target Diversification advantage over equal weighting

The FTSE Russell Target Diversification approach delivers many of the diversification benefits of equal weighting while addressing its key limitations:

- Lower tracking error: By preserving more of the market-cap structure while still improving diversification, Target Diversification typically reduces tracking error by 30-50% compared to equal-weighted approaches
- Reduced turnover: The methodology results in significantly lower portfolio turnover often 40-60% less than equal-weighted strategies—leading to lower transaction costs and improved tax efficiency
- **Preserved liquidity profile:** Maintains greater allocations to larger, more liquid securities while still achieving diversification targets, enhancing implementation efficiency

A better solution with lower tracking-error, reduced implementation costs and fewer distortions

Equal-Weighted is not the answer for the majority of investors

- Balanced industry exposure: Minimises unintended industry tilts common in equalweighted portfolios, maintaining closer alignment with the economic structure of the market
- Scalability: Offers greater capacity for institutional investors by limiting excessive positions in smaller, less liquid securities
- Customisable diversification: Unlike the all-or-nothing approach of equal weighting, Target Diversification allows precise calibration of the diversification level to meet specific investor objectives

The Target Diversification framework offers an effective middle ground between market-cap and equal-weighted approaches, enabling investors to achieve enhanced diversification without sacrificing implementation efficiency or dramatically altering the market's economic representation. By targeting lower tracking error and reduced turnover, it provides a practical solution for investors seeking improved portfolio diversification.

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