Index Insights | Multi-Asset

Weighing in on index transparency: A visual explanation of index weights

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Weighing in on index transparency

Investor scepticism toward non-market cap weighted indices often arises from limited transparency in how constituent weights are derived. Relative stock weights, and the resulting performance and risk outcomes may stem from specific index targets or constraints and understanding this allows investors to understand the implication of design choices.

While optimisation-based approaches provide precise control over a chosen metric (or ‘utility function’), the resulting weights can be difficult to interpret, complicating downstream communication and potentially undermining investor confidence.

Tilt-based methodologies offer a more transparent alternative. By applying multiplicative adjustments to benchmark weights based on a given factor score, the resulting index weights can be directly attributed to specific targets and constraints. This structure allows for clear, granular decomposition of relative positions.

In this paper, we present a visual framework for disaggregating these effects under tilt-methodologies, enabling investors to better understand and communicate the rationale behind index design choices.

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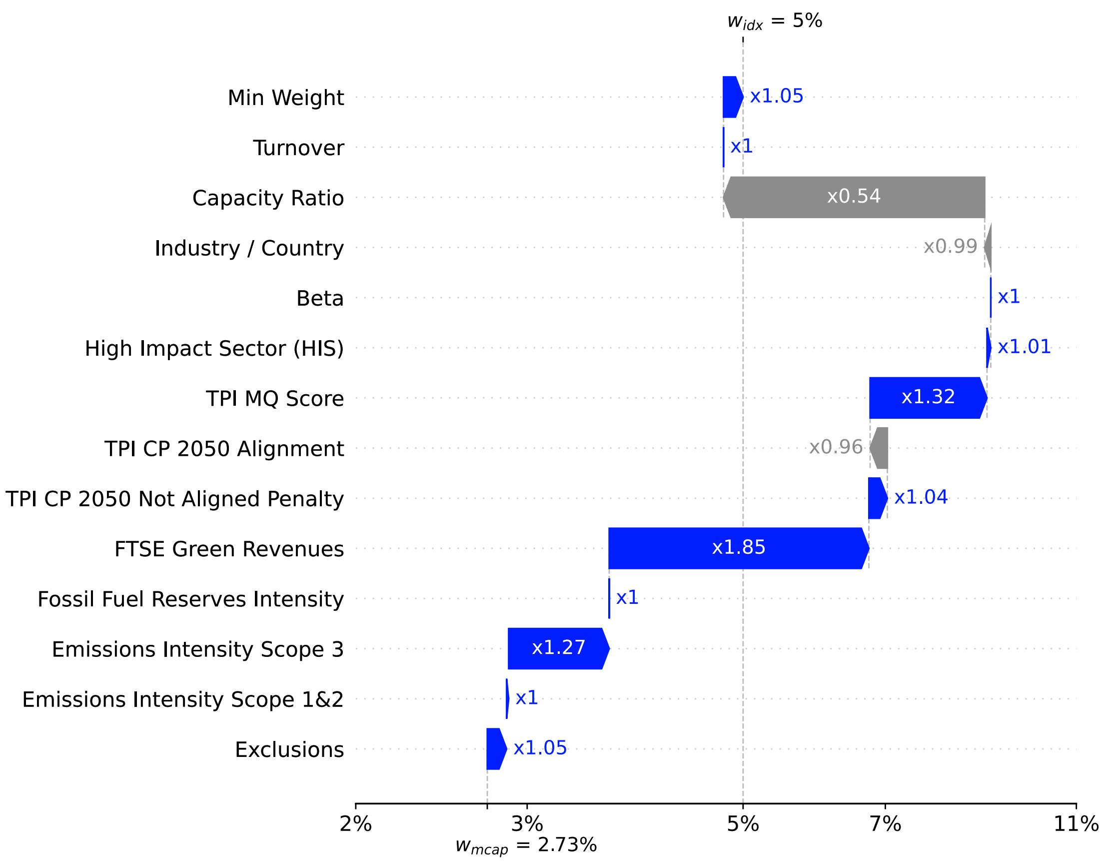
The Weight Explainer

By breaking down the transition from benchmark to index weight into a series of multiplicative tilts, we can graphically map how each input contributes to the final position. This visualisation, which we term the **Weight Explainer**, provides a transparent link between index objectives and constituent-level outcomes.

Figure 1: Weight of Amazon.Com in the FTSE Developed Paris-Aligned Benchmark at a September 2025 review



Source: Index Research and Design, FTSE Russell, October 2025.

To achieve this, we standardise inputs using Z-scores[1] and apply exponential functions to modulate the relative strength of each tilt. In this framework, a tilt greater than 1 reflects an overweight, rewarding companies that exhibit desirable characteristics. Conversely, a tilt less than 1 corresponds to an underweight, while a tilt equal to 1 leaves a stock's weight unchanged.

[1] A Z-score measures how many standard deviations a data point is from the mean of a distribution.

In Figure 1 above, we consider the weight of Amazon.Com within the FTSE Developed EU Paris-Aligned Benchmark[2]. Starting from a benchmark weight of c.2.34% in the FTSE Developed Index, Amazon receives a substantial uplift driven by its Green Revenues exposure, which nearly doubles its weight. Further positive tilts are applied based on its strong TPI Management Quality (TPI MQ) score and sector/country correction (a tilt to bring the sector/country exposure in line with constraints). To mitigate concentration risk, the capping factor (applying the max weight constraint) of 5% is imposed.

Crucially, the multiplicative tilting framework is order-independent, meaning the final weight outcome is not influenced by the sequence of tilts. This ensures methodological robustness and enhances transparency.

The result is a fully traceable explanation for Amazon's weighting, from c.2.34% to c.5.00%, anchored in observable, auditable inputs. By explicitly linking index objectives to constituent outcomes, the **Weight Explainer** enhances both interpretability and investor confidence in index design.

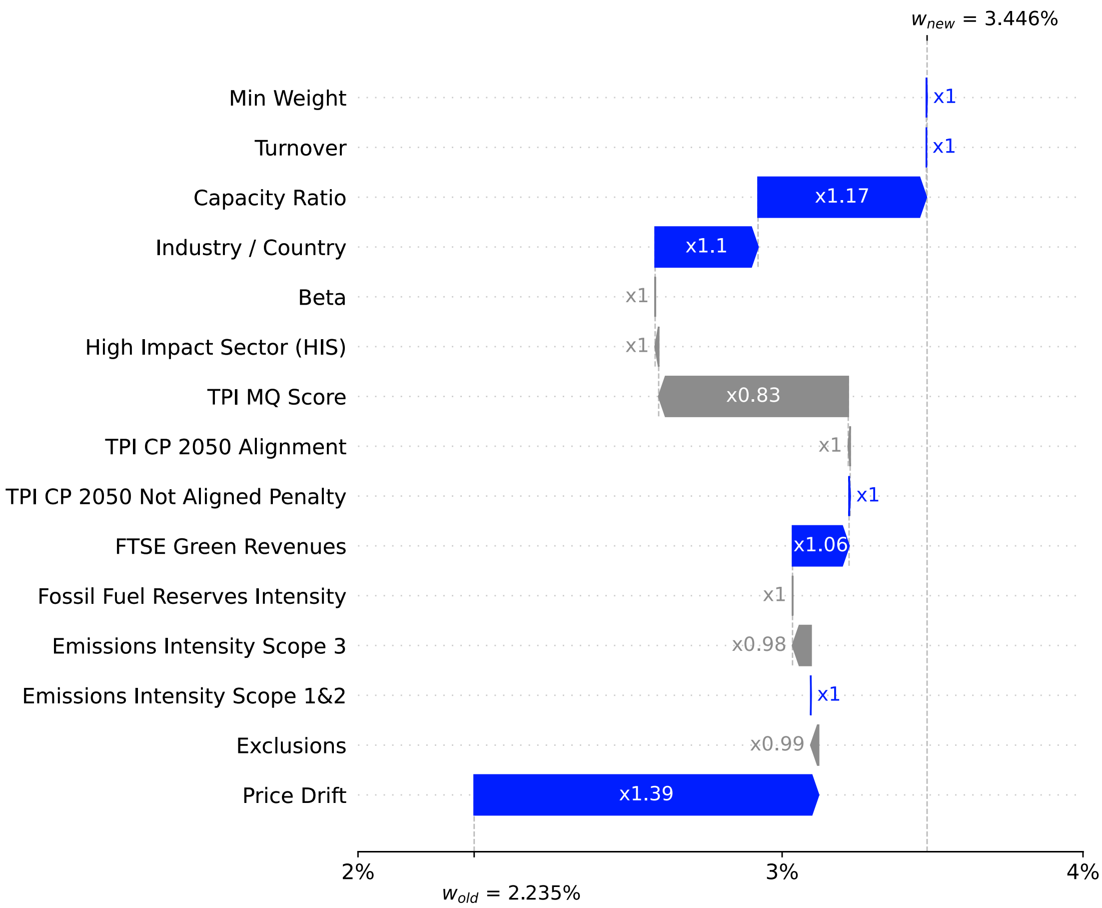
The Weight Change Explainer

Beyond attribution for a specific review, the framework can be extended to track changes over time, offering investors a clear view of how and why index constituent weights change between index weight at review T and review T+1. This dynamic perspective, which we call the **Weight Change Explainer**, captures the impact of updated data inputs, changing constraints, and market movements between index rebalances.

Take Nvidia as a case study. Between the September 2023 and September 2024 rebalances, Nvidia experienced a significant price rally, which increased its starting index weight to c.1.03%, an uplift of 186%, driven entirely by price appreciation. Despite Nvidia's Green Revenues remaining at 0% in both review periods, the broader universe saw a fall in Green Revenues exposure, reducing Nvidia's relative penalty. This moderation in the negative tilt contributed positively to change in Nvidia's review weight.

[2] More detail about the FTSE Developed EU Paris Aligned (PAB) Index can be found FTSE EU Climate Benchmarks Index Series.

Figure 2: Nvidia's stock weight change in a FTSE Developed Paris-Aligned Benchmark between September 2024 and September 2025



Source: Index Research and Design, FTSE Russell, October 2025.

By isolating the impact of each factor, market performance, fundamental data changes, and index constraints, the **Weight Change Explainer** provides a granular, auditable account of Nvidia's weight movement. The result was a final weight of c.2.32%, up 1.29 percentage points from the previous rebalance, with each component of the change clearly mapped.

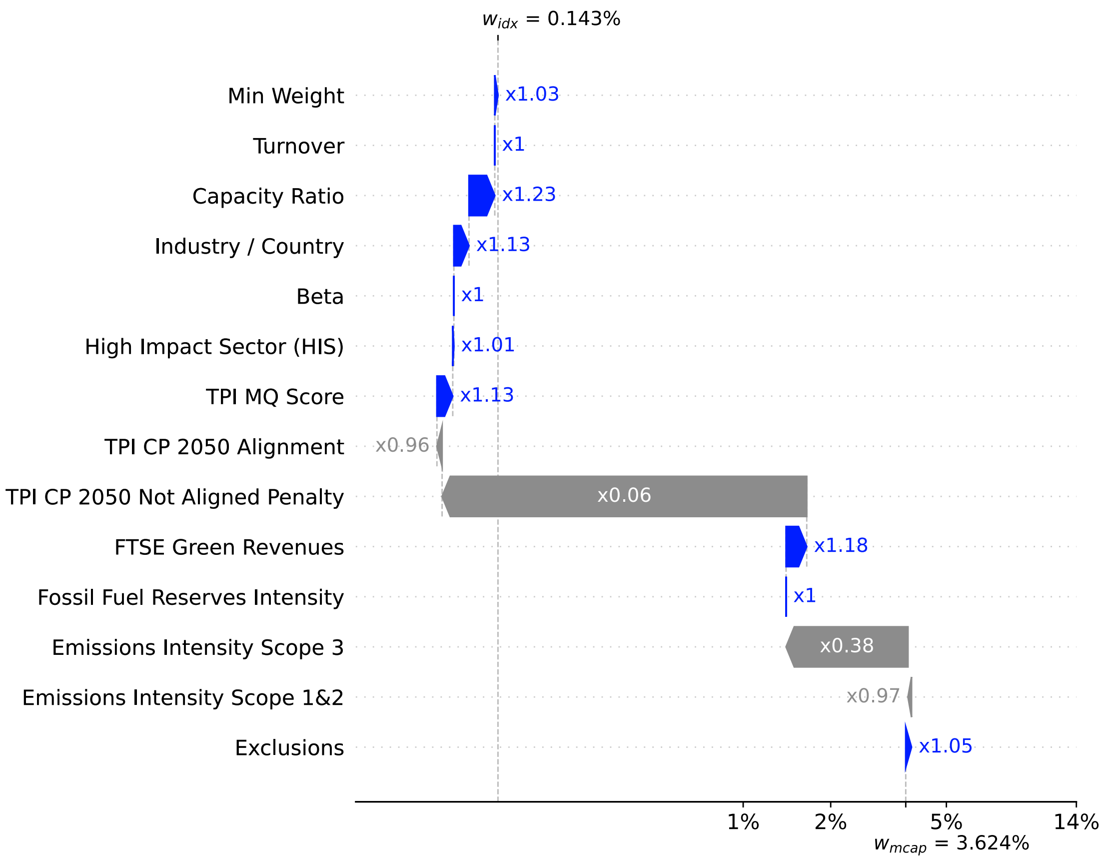
This approach reinforces the value of transparent index design, enabling investors to distinguish between performance-driven shifts and methodological effects, ultimately supporting more informed interpretation of index outcomes.

The Sector Weight Explainer

This decomposition framework is not limited to individual stocks; it can be scaled to sector-level analysis, offering further transparency into how thematic objectives shape aggregate exposures.

In Figure 3 we consider active exposure to the ICB Energy sector in FTSE TPI All-World Climate Transition Index, where constituent weights vary to account for risks and opportunities associated with the transition to a low carbon economy[3]. The Energy sector had a 4.08% weight in the benchmark at the September 2024 review. From this starting point, this exposure was significantly reduced through two key tilts: a sector-level penalty for poor TPI Carbon Performance (CP) 2050 alignment, and an additional penalty for fossil fuel intensity.

Figure 3: Exposure to ICB Energy sector in FTSE TPI All-World Climate Transition Index at September 2025 review



Source: Index Research and Design, FTSE Russell, October 2025.

[3] More details on FTSE TPI Climate Transition Index Series

The resulting underweight aligns with the index's stated aim of reducing fossil fuel exposure and aligning with a climate transition pathway. What is notable, however, is the transparency with which this outcome can be understood. The Sector Weight Explainer disaggregates the impact of each constraint and tilt, allowing us to pinpoint the precise drivers of the sector's relative underweight.

This level of clarity supports more effective communication with stakeholders and enhances the credibility of the index design by demonstrating that sector-level deviations are a direct, traceable result of the methodology, and that they reflect the intent of investors.

See the full picture with our Weighting Explainer analytics

When capital is at stake, it is essential that investors can understand the rationale behind every stock and sector weighting. Transparency is a foundational principle of fixed tilt-based methodologies. Visual analytics such as the **Weight Explainer, Weight Change Explainer**, and **Sector Weight Explainer** provide lenses through which to interpret index positions.

By explicitly linking each data input to its impact on final weights, these tools deliver traceability and enable a more intuitive understanding of how investment objectives are operationalised at the portfolio level. This clarity fosters trust in index methodology, supports better alignment with investor mandates, and ultimately strengthens the credibility of sustainable and factor-based strategies in an increasingly scrutiny-driven investment landscape.

Transparency is central to thoughtful index design. At FTSE Russell, we partner with clients to create and deliver index solutions tailored to their distinct portfolio construction needs.

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