PORTFOLIO ANALYSIS

Pricing the transition: portfolio optimisation in Euro credit

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SUMMARY

- **A transition-optimised Euro IG portfolio improves on Co₂liseum score by 41% while matching the benchmark cumulative gross return of 1.59% over the test period.**
- **Compared to a large Paris-aligned ETF, which leads on current emissions, the transition-optimised portfolio leads on forward commitments and validated science-based targets.**
- **Improvement is achieved primarily through issuer selection within sectors and less sector concentration than the Market PAB.**

Climate analysis in fixed income is concerned with both present emissions and the future pathway, as described by issuers' forward-looking transition plans. This study aims to quantify the value of these metrics over time and ground them in familiar portfolio performance rubrics.

A well-known diversified Euro investment-grade (IG) index is used as the benchmark.[1] A transition optimised portfolio is constructed using AFII's Co₂liseum transition analytics that provides both a scoring and an optimisation for credit professionals.[2,3] The transition portfolio duration and spread align with the broad benchmark as an added constraint with small sector tolerance. To make the performance comparable to a live market portfolio, a Paris-aligned benchmark (PAB) ETF that is derived from the benchmark is used as the market PAB. The variations in these three related portfolios help quantify the metrics.

Table 1 shows the portfolios' headline performance metrics from July 2025 to August 2026. The transition optimised portfolio scores 1.75 on Co₂liseum's scale of 1 to 9 (a lower score denotes better transition performance), while return and risk metrics are similar to the index. The report expands on the methodology and discusses these results in detail.

Table 1. Headline metrics for the three portfolios. Source: AFII analysis, Bloomberg Finance L.P., S&P Global Market Intelligence, TPI Centre and SBTi, accessed 13 Aug 2026.

Metric	Euro IG index	Market PAB	Co₂liseum
Co₂liseum score	2.96	2.63	**1.75**
Cumulative return %	1.59	1.55	1.59
Volatility %	2.66	2.63	2.59
Tracking error bp	0	8.56	10.5
Max drawdown %	-2.61	-2.62	-2.56
Holdings	4112	1847	2909
Eff duration	4.45	4.43	4.46
Z-spread bp	68.94	72.36	69.36
DTS	428.0	423.5	440.8
Green bond weight %	11.99	13.96	15.17
Active share %	0	66.89	30.01

[1] The Bloomberg Euro Corporates Index (LECPTREU) is a diversified aggregate corporate index.

[2] **Each Co₂liseum portfolio is hypothetical; each portfolio and the methodology are for informational and educational purposes only and are not investment recommendations. See the Co₂liseum website here, including our disclaimer notice.**

[3] The Co₂liseum transition score runs from 1 to 9, with lower indicating stronger transition alignment, Refer to "Co₂liseum transition analytics methodology 2026:03", 10 March 2026.

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Introduction

Climate analysis of bond portfolios is challenging given the explosive growth of various climate metrics. While highly diverse, these metrics are broadly classifiable into two categories: backward-looking measures tracking historical emissions (what a company has already produced, scaled to its capital base), and forward-looking indicators assessing transition plans and commitments (measuring whether an issuer's carbon trajectory is consistent with a 1.5°C scenario etc, and whether it has made a credible commitment to achieve this).

Markets are forward-looking while reporting metrics are generally backward-looking. This creates tension in portfolio construction. A portfolio considering only present emissions may have a lower carbon footprint today but could include issuers that are on an adverse carbon trajectory, whereas one built solely using targets could include issuers with ambitious plans but poor implementation. A complete assessment needs both perspectives, alongside the standard financial characteristics that determine how a bond portfolio behaves: its duration, spread, sector exposure, diversification, and trading requirements.

This paper applies AFII's Co_2liseum transition analytics to Euro investment-grade credit. These are used to test whether the transition profile of an index portfolio can be improved through systematic, controlled reweighting without materially changing average market-risk characteristics.[4] We compare the result with the parent Euro IG index and a large live Market PAB ETF, Amundi EUR Corporate Bond Climate Paris-Aligned UCITS ETF. The purpose is to measure the portfolio consequences of transition score optimisation.

The next sections introduce Co_2liseum and its systematic transition scoring, the data used and the limitations with available datasets. Historical snapshots and changes of portfolio over time are not public. We then analyse the characteristics and returns of the portfolios and conclude with future questions and limitations.

Co_2liseum for transition analytics

Co_2liseum is designed for fixed income markets in an open manner.[5] It is a quantitative, systematic platform based on a transition scoring component and leverages other tools necessary for portfolio construction, optimisation,[6] and engagement[7] for transition-oriented portfolio professionals.

Co_2liseum score

The Co_2liseum transition score runs from 1 to 9, with a lower score indicating stronger transition alignment.[8] Issuers are ranked relative to their peers within their respective sectors and regions: a utilities company is measured against other utilities, a European issuer against European peers, and so on. This peer-relative design means the score reflects transition effort rather than the raw carbon level that comes with a given sector or geography.

[4] A similar exercise was performed earlier this year on a sovereign ETF, see "Co_2liseum transition analytics for sovereigns", AFII, 19 Mar 2026.
[5] Freely available on sign up for professionals.
[6] The optimisation is built on AFII's production optimiser on Co_2liseum. It is a linear programme: the objective, minimising the portfolio's duration-weighted Co_2liseum score, and every constraint, covering duration, z-spread, sector and group weights, single-name size, long-only positions and one-way turnover, are all linear.
[7] "Bond Horizon" to predict new issues from AFII's corporate issuer list and "The Box" ranking methodology for banks, AFII
[8] "Co_2liseum transition analytics methodology 2026:03", AFII, 10 March 2026.

Scores are maintained in versioned batches. Each vintage is dated to the evidence available at that time and does not revise in place, so a portfolio or backtest can be run point-in-time: the score an issuer carries at any date is the assessment that was available when that position was held.

The current framework for corporates (sovereigns are handled separately) combines two types of evidence. The backward-looking component is a greenhouse-gas measure centred on emissions over enterprise value. The forward-looking component is a Transition Pathway Initiative score, which assesses whether an issuer's carbon trajectory is consistent with a 1.5°C scenario. The combined score is then notched down by one or two levels using AFII's five-level Science Based Targets initiative scale: net-zero commitments, 1.5°C alignment, and credible near-term targets receive the strongest adjustment.[9] Instrument-level adjustments are also applied, including for labelled green bonds.

Co_2liseum is AFII's approach for applying this score to fixed income portfolios, with an optimiser. The broader platform has various other tools for fixed income professionals. It reduces the two-axis climate picture to an intuitive signal that can be used alongside duration, spread, CS01, and return attribution, while reflecting the imprecision of climate data: the score is a relative assessment, not a claim that one carbon-footprint estimate captures every dimension of transition performance.

Credit benchmark universe

We analyse three Euro IG portfolios derived from the same universe over the period July 2025 to August 2026.

The **Euro IG index** (Bloomberg Euro Corporates Index) is taken from its real 31 July 2025 constituents, reconstituted on its real 29 June 2026 composition mid-way through.

The **Market PAB** is the Amundi EUR Corporate Bond Climate Paris-Aligned UCITS ETF, reflecting its real holdings as of 31 July 2025.[10] The ETF tracks the Bloomberg MSCI Euro Corporate Paris Aligned Green Tilted Index.[11] This index is constructed exclusively from the Bloomberg Euro Corporate Index parent universe and is designed to meet and exceed the minimum requirements of an EU Paris-Aligned Benchmark. It targets a weighted-average reduction of at least 50% in both absolute greenhouse-gas emissions and carbon intensity relative to the parent index, followed by an annual 10% decarbonisation trajectory from its base-date level. It also applies exclusions and tilts towards green bonds, green revenues, and issuers meeting carbon-reduction targets. The ETF provides an investable market implementation of this approach and is included to provide market context rather than to critique its methodology.

Co_2liseum is AFII's optimised portfolio version of the parent index, built to minimise the Co_2liseum transition score while holding duration and z-spread at index levels and reweighting issuers and sectors within a turnover budget. This portfolio also uses the same snapshot of Euro IG Index and uses the scores available at inception on 31 July 2025.

[9] Source data: Science Based Targets initiative Target Dashboard, SBTi, accessed 18 March 2026 and TPI Global Climate Transition Centre at the London School of Economics and Political Science, TPI, accessed 18 Mar 2026. AFII calculations and derived classifications. Neither data provider has reviewed or endorsed AFII's methodology or conclusions.
[10] "Amundi EUR Corporate Bond Climate Paris-Aligned UCITS ETF", Amundi, accessed 13 Aug 2026. Holdings data accessed from Bloomberg Finance L.P. 13 Aug 2026.
[11] "Bloomberg MSCI Euro Corporate Paris Aligned Green Tilted Index", Bloomberg, 17 Aug 2022.

All three portfolios use the same pricing source.[12] The index and market fund have limitations in sourcing constituent level data historically so for them the published index and fund level performance metrics are used without the transparency of portfolio level holdings change. The constituents are used for measuring portfolio level transition performance at inception and close to the period end. The inception level index constituents reproduce the published index total return with a gap of 6bps, which reflects pricing sources differences and lack of monthly snapshots.[13]

Climate datasets are changing over time. The Co_2liseum portfolio is **re-optimised with the scores available at each date**. For portfolio optimisation, available data at the time of optimisation is used. The latest scores are only used to report the final metrics.[14] The impact of these changes is discussed for full transparency in the returns analysis section showing how the portfolio would have performed without these changes. Just as the benchmark index and the Market PAB performance figures are post optimisation (monthly or quarterly changes) the Co_2liseum transition portfolio with its constituent level is similarly optimised with the transition data changes.

Table 2. Headline metrics for the three portfolios over the year to 13 August 2026. Source: AFII analysis; data: Bloomberg Finance L.P., S&P Global Market Intelligence, TPI Centre and SBTi, accessed 13 Aug 2026.

Metric	Euro IG index	Market PAB	Co_2liseum
Co_2liseum score	2.96	2.63	**1.75**
Cumulative return %	1.59	1.55	1.59
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Costs of transition optimisation

Table 2 shows the relevant metrics for the three portfolios. With the same starting universe, the Euro IG index returned 1.59%, the Market PAB ETF 1.55% and the Co_2liseum portfolio 1.59%. Returns for all the portfolios are holdings-based gross total return reconstructions using a common pricing source, before management fees and transaction costs. This allows for equal comparison. Published index and fund returns are used as external validation; estimated implementation costs are discussed below. The ETF shows slight underperformance, which is not significant. The optimised Co_2liseum portfolio had a marginally higher tracking error than the others at 10.5bp.[15] There is no material average duration or spread mismatch as the weights are index-like. Co_2liseum has approximately 3% higher DTS than the Euro IG index, indicating modestly greater sensitivity to proportional credit-spread moves. The difference is small but means the portfolio is not perfectly neutral on every measure of spread risk.

[12] "S&P Global Market Intelligence Price Viewer", S&P Global, accessed 13 Aug 2026.
[13] Index constituent weights, total-return levels and Amundi ETF holdings are from "Bloomberg Fixed Income Indices", Bloomberg Finance L.P. Bond prices, z-spreads, duration and reference data are from "Price Viewer", S&P Global Market Intelligence. Accessed 13 August 2026.
[14] The Co_2liseum portfolio is re-optimised at each date on the score vintage available then, July 2025 at inception, the February and March 2026 revisions, and the July 2026 vintage in the tail. Climate metrics in the scorecard are measured on the July 2026 vintage and applied equally to all three portfolios, so the comparison uses one consistent ruler.
[15] Tracking error is calculated as the sample standard deviation of daily total-return differences between the portfolio and the Euro IG benchmark, annualised using 252 trading days and expressed in basis points.

The Co_2liseum transition score brings together historical GHG performance, forward-looking TPI pathways, and the SBTi notch adjustment in one relative ranking, and the optimiser works to maximally improve this score. It does so while keeping the sectors close to the index and matching duration and spread, working to find the bonds that score well for the given spread level. Better scoring bonds do tend to trade at slightly tighter spreads, meaning the optimiser allocates to better credits. The optimised portfolio score of 1.75 is 41% lower (and therefore more transition-aligned in our methodology) than the Euro IG Index. The Co_2liseum portfolio has a marginally higher weighting of green bonds at 15.2% compared to 14% for the Market PAB.

The number of overall holdings is also quite low in the Market PAB, likely reflecting market liquidity and position limit constraints. It uses only 44% of the bonds in the benchmark index while the Co_2liseum portfolio uses 70%, which means, more optimisation constraints regarding available market liquidity in the bonds in the universe would improve the analysis which is a limitation of the current Co_2liseum optimisation approach.

The costs of constructing and maintaining the Co_2liseum portfolio also need to be studied. While a comprehensive analysis is out of scope, given data restrictions and market data availability, we offer the following simple analysis. The turnover, defined as absolute number of changes (including marginal changes), is 66%. At a 10bp half-spread assumption, the Co_2liseum portfolio carries approximately 13bp of aggregate trading cost.[16] The two index snapshots show a 21.5% reconstitution turnover between inception and again closer to the period end. This is about 4bp of natural turnover, giving a net active optimisation-led cost of roughly 9-10bp per year. These costs exclude the initial portfolio build, which would add a one-time transaction cost of approximately 10bp. For comparison, the Market PAB ETF carries a total expense ratio of approximately 14bps per year.

Relative transition performance pickup

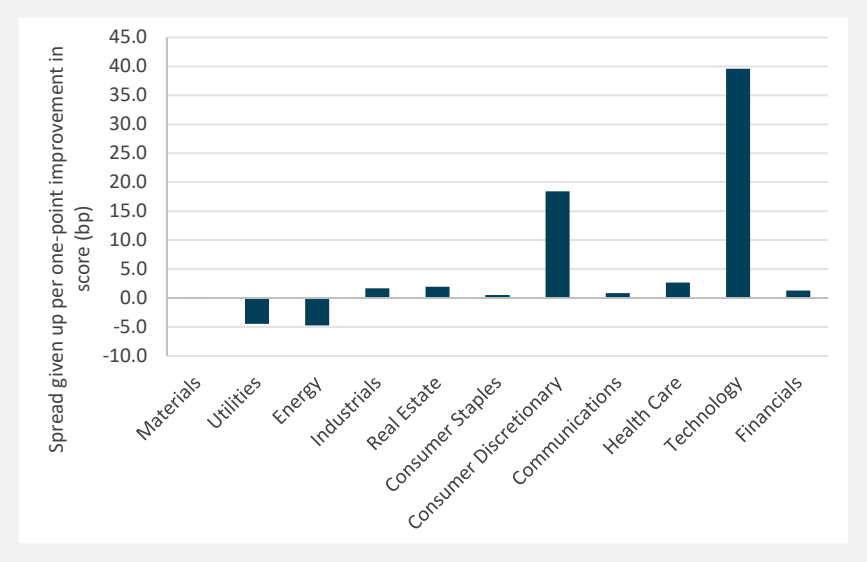
On the transition side, the more interesting cost analysis is how much credit spread is gained or lost by going up or down a notch on the Co_2liseum scoring scale. For some sectors this is easy, as examples of issuers with similar spread levels but with lower scores can be found. The calculation is similar to spread per turn of leverage analysis, something familiar to credit analysts. Like this traditional metric, the transition score pickup is not spread evenly across sectors. Indeed, in the sectors that drive a portfolio's carbon profile, credit spread barely responds to the transition score.

Each bar in Figure 1 shows how many basis points of z-spread a bond gives up per notch of transition score within its sector on 13 Aug 2026. In Utilities, Energy, and Materials, the three sectors that dominate portfolio carbon, the change is close to zero. These estimates are descriptive rather than causal and should not be interpreted as transaction costs: score ranges differ across sectors, multiple bonds from the same issuer share a score, and the calculation does not separately control for rating, maturity, liquidity, capital structure or other issuer characteristics. The broad pattern is nevertheless that the spread trade-off appears concentrated in low-emitting, high-quality sectors where the best-scoring names are also the tightest, like Technology and Consumer Discretionary, while Utilities, Energy and Materials show little or no penalty at this

[16] Any new position has a corresponding sold position, so a 66% turnover reflects two trades. The cost is 66%x2x10bps, which is 13bps. BBB bonds trade between 8-11bps bid offer spread.

observation date. With the ongoing data centre buildout, these historically low-emitting sectors are, however, worth observing moving forward.[17] These tend to be lower-beta credits, so the trade-off in transition score may reduce portfolio volatility while offering less obvious benefits to expected return.

Figure 1. Within-sector sensitivity of credit spread to the transition score, by sector, on the euro IG index on 13 Aug 2026. Source: AFII analysis, Bloomberg Finance L.P., S&P Global Market Intelligence.



The Co₂liseum portfolio strategy aims to improve the transition scores within sectors. A more advanced approach, accounting for sectoral or individual issuer correlations, could be deployed to further improve the optimising strategy. However, this is much more data and compute intensive, likely limiting it in value.

Transition performance drivers

The Co₂liseum portfolio and Market PAB ETF align with different climate outcomes, and the difference is not one being greener than the other. Each portfolio is oriented towards the objectives they were built for. The Market PAB tracks an EU Paris-Aligned Benchmark, which is mandated to maintain an allocation that cuts current emissions and decarbonises by at least 7% a year. This approach is informed by published emissions data and is primarily, by nature, backward-looking. The Co₂liseum portfolio, on the other hand, is focused on minimising its own transition score, which combines both historical emissions data and forward-looking information with an equal weight. Table 3 includes a comparison of the two objectives.

Table 3. Weighted climate metrics for the three portfolios, latest composition. Source: AFII analysis, Bloomberg Finance L.P., S&P Global Market Intelligence, TPI Centre and SBTi, accessed 13 Aug 2026.

Metric	Euro IG index	Market PAB	Co₂liseum
Co₂liseum score	2.96	2.63	**1.75**
Emissions intensity (t/€mm sales)	93.99	**41.16**	52.69
CO_2/EVIC, scope 1-2 (t/€mm)	45.48	**16.91**	21.35
CO_2/EVIC, scope 1-3 (t/€mm)	769.56	**418.88**	458.31
SBTi AFII score (lower = better)	3.17	3.11	**2.87**
TPI AFII score (intra-sector, lower = better)	1.63	1.67	**1.60**
Score coverage (% of invested weight)	94.27	95.48	94.28
Emissions coverage (% of invested weight)	94.27	95.48	94.28
SBTi coverage (% of invested weight)	46.83	50.26	58.87

On the past **emissions trajectory**, the Paris-aligned ETF leads, as its mandate requires. It cuts the Euro IG index's emissions intensity by 56% (in our estimations) and has the lowest CO_2 over EVIC values of the three portfolios. It achieves this by cutting Energy, Utilities, and Materials heavily compared to the index. In

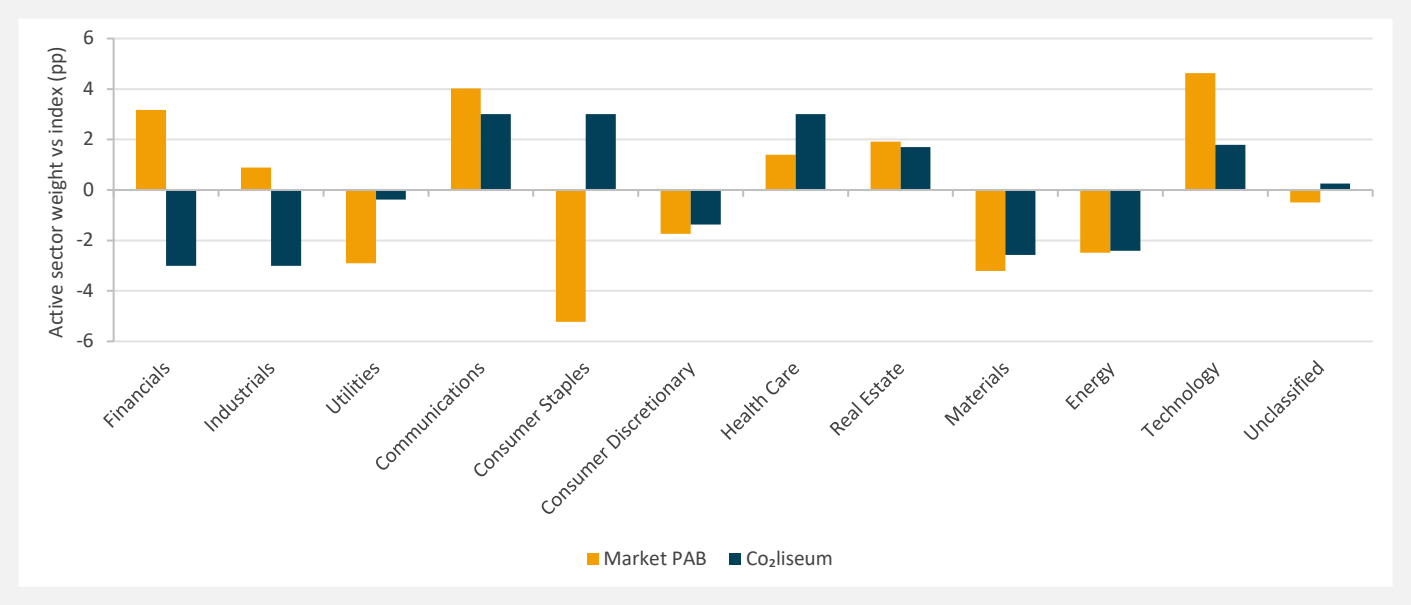
[17] For related AFII work on data centre debt please see "Data centre debt: bondholder leverage to shape AI energy strategy", AFII, 29 Jul 2026 and "QTS Fayetteville: Microsoft-tied data centre green bond", AFII, 06 Aug 2026.

contrast, the Co₂liseum portfolio cuts emissions intensity by 44% and does not match the ETF on headline intensity.

On **forward commitments**, the portfolios' metrics are flipped. The Co₂liseum portfolio score is the lowest of the three at 1.75 compared to 2.96 for the Euro IG index. This difference is due to the portfolio being weighted towards issuers with validated targets and net-zero commitments. To further understand the difference, the underlying Science Based Targets initiative status[18] is shown separately so the portfolio's target-setting profile remains visible rather than being compressed into the combined score.

The sector compositions make the portfolio level differences clear. Figure 2 shows the under- or overweight relative to the benchmark for the Market PAB and Co₂liseum portfolio.

Figure 2. Active sector weights against the index, the optimised portfolio and the Paris-aligned ETF. Source: AFII analysis; data: Bloomberg Finance L.P., S&P Global Market Intelligence, TPI Centre and SBTi, accessed 13 Aug 2026.



The Market PAB cuts the sectors Consumer Staples, Utilities, Materials, and Energy down two to five percentage points of weighting each. Notably, the Co₂liseum scoring methodology for Financials does not use emissions intensity, as it is not a useful metric for that sector, but instead looks at deal origination to anchor scoring for major banks, while smaller banks all get a middle score of four.[19] The Market PAB overweights both Financials and Technology. The PAB also has more relative over- or underweight to the index (higher skew). The Utilities underweight suggests the extensive use of labelled bonds in the sector does not have much of an impact on allocations. Also, under the Co₂liseum methodology, transition scoring is based on the instrument level, meaning favouring labelled bonds is to be expected within the Co₂liseum portfolio. When the metrics are reported for all the portfolios in this paper, all these nuances are considered and reported uniformly. The Industrials underweight reflects the combination of issuer-level transition scores and portfolio constraints, rather than an explicit sector preference.

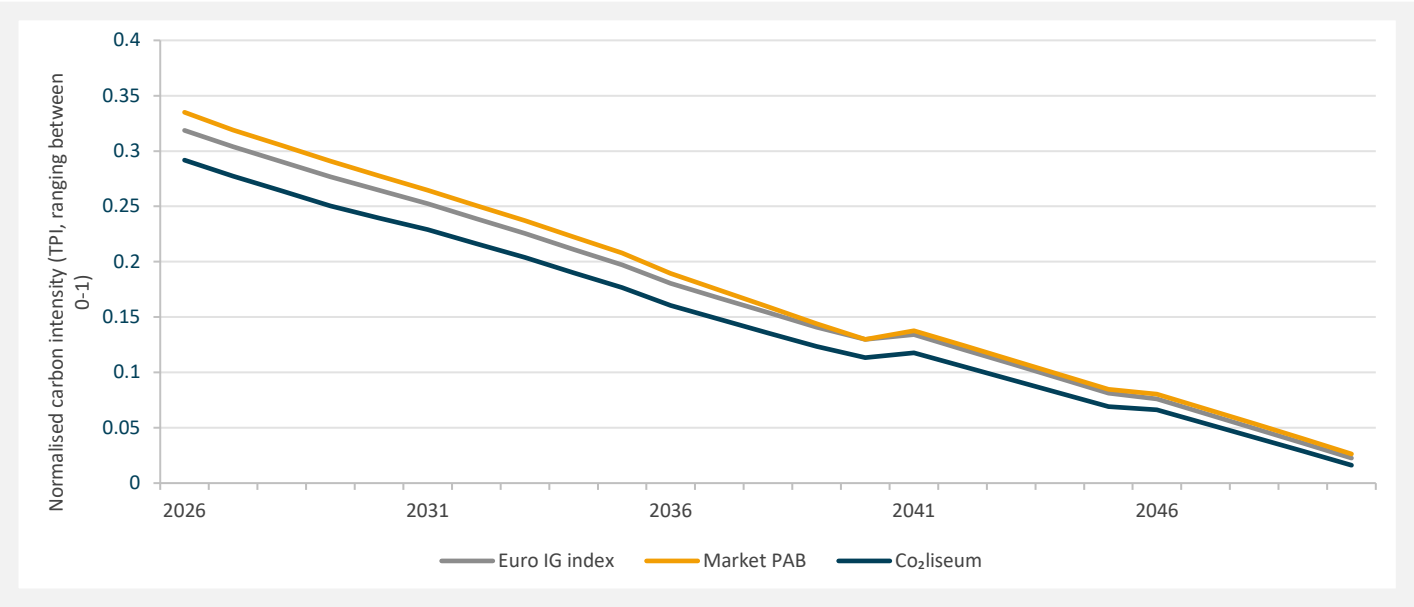
[18] "SBTi Target Dashboard", Science Based Targets initiative, accessed 13 August 2026. AFII maps the data to issuers and applies a five-level scale evaluating net-zero commitment, target timing and temperature alignment; qualifying evidence improves the combined score by one or two notches.

[19] For more on this approach see AFII's "The Box", AFII, 17 Sep 2026.

Forward commitments pathways

Weighting each portfolio by its holdings against carbon performance sectoral and issuer paths outlined by the Transition Pathway Initiative shows the Co_2liseum portfolio carries the lowest projected carbon intensity at every horizon to 2050. While future performance is not certain, relative differences are likely to persist (see Figure 3).

Figure 3. Forward-looking transition path, portfolios weighted by TPI sector decarbonisation, 2026 to 2050. Source: AFII analysis; data: Bloomberg Finance L.P., S&P Global Market Intelligence, TPI Centre, accessed 13 Aug 2026.



The science-based targets data tells a similar story. The Co_2liseum portfolio is weighted most towards issuers with any validated near-term target, about 55% against the Market PAB ETF's 46%, and towards issuers with net-zero targets, about 35% against 24%.

Table 4. SBTi target status by portfolio, share of portfolio weight. Source: AFII analysis; data: Bloomberg Finance L.P., S&P Global Market Intelligence, SBTi, accessed 13 Aug 2026.

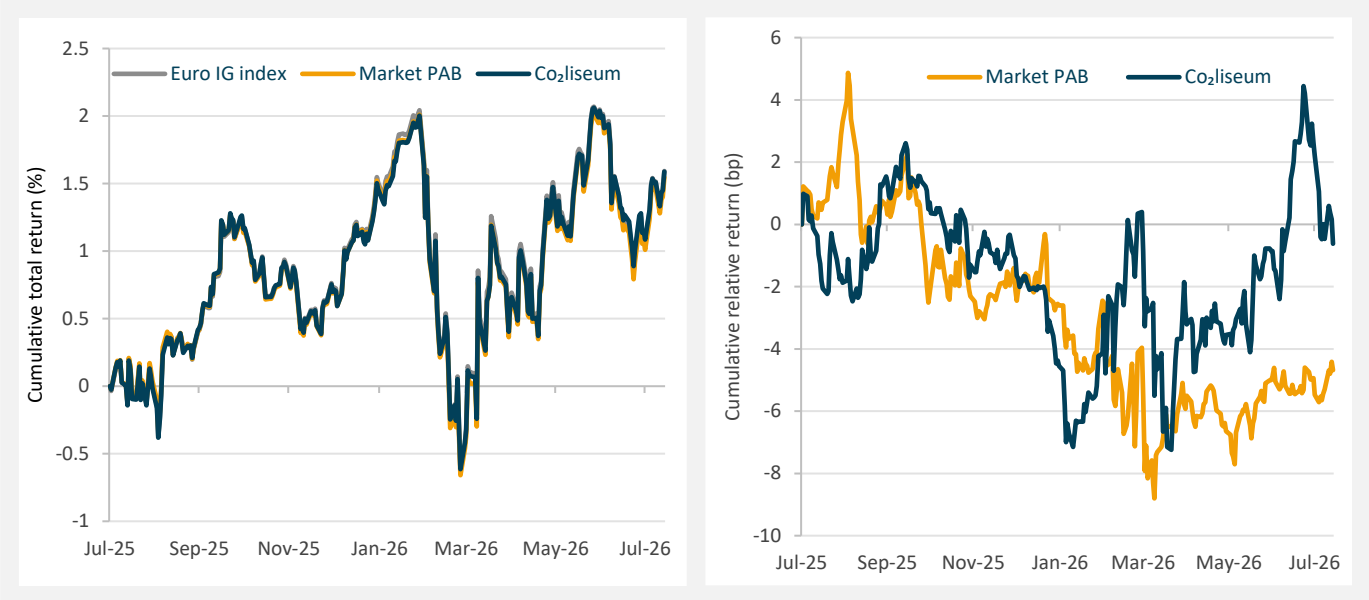
SBTi status (% of portfolio weight)	Euro IG index	Market PAB	Co_2liseum
Targets set	41.8	45.6	54.8
Committed	2.9	3.5	2.9
Commitment removed	2.2	1.1	1.1
Not covered	53.2	49.7	41.1
Net-zero targets set	21.6	24	35.2

Return drivers

In this section we analyse the return and volatility performance of the portfolios. Figure 4 (LHS) shows the cumulative return and the over- and underperformance relative to the Euro IG index for the two transition-oriented portfolios, while differences in performance between these two are in the RHS panel. The relative difference is 4bps over the entire period, which is not significant, though recently it has started to diverge.

The two climate portfolios track the index differently because they are optimised on different transition goals. The Co_2liseum tilt is defensive: it overweights Health Care, Communications, and Consumer Staples and underweights Financials, Industrials, and Materials. The PAB tilt is pro-cyclical: as in order to reduce current emissions, it underweights Energy and Utilities and allocates into Financials and Real Estate.

Figure 4. Cumulative total and relative return against the parent index. Source: AFII analysis; data: Bloomberg Finance L.P., S&P Global Market Intelligence. accessed 13 Aug 2026.



The market PAB sectoral differences explain some of the performance differences. The overweights on Financials led to underperformance in the first three months of 2026 on the back of private credit concerns. Moreover, since March 2026, with the launch of the Iran conflict, the underweighted Energy and Utilities sectors have performed well. Technology, another overweight sector, has become volatile and is expected to stay volatile given a recent, unprecedented surge in debt issuance.

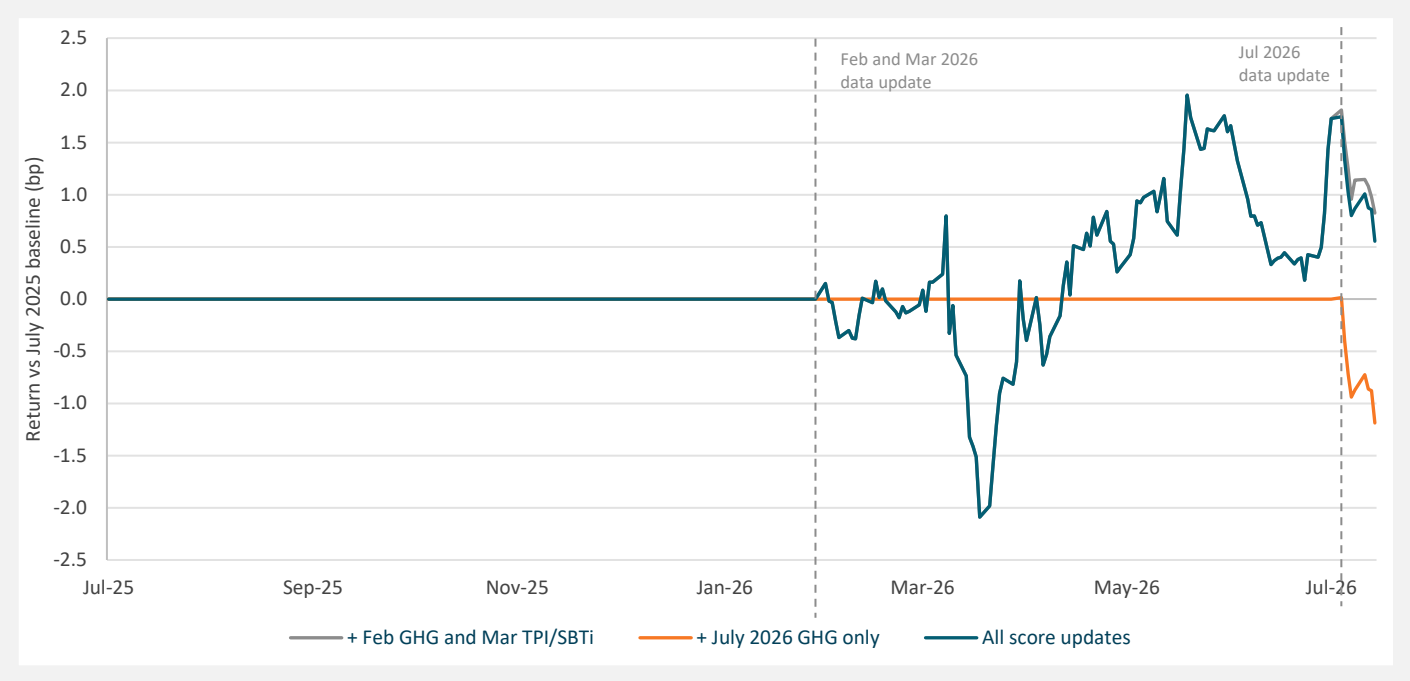
Furthermore, the sell-off of government bonds this summer was mirrored in the Market PAB and Co_2liseum portfolios. Overall, while there is no structural claim for performance the transition optimised portfolio has not underperformed. In addition, the direction and volatility of performance is not accidental: different tilts carry different market exposures.

Transition data updates

Markets are dynamic, and the data used to track transition performance keeps evolving. In the period of this analysis, transition data has changed a few times. In this section we attempt to isolate the impact of these changes. The Co_2liseum score was revised three times during the window: following transition data updates in Feb 2026, March 2026 and July 2026.

The issuer Stora Enso illustrates the progression. At inception it carried a score of 6. The March TPI update revised it to 4.5; then the March SBTi adjustment brought it to 3.9; the July GHG revision brought the score to 2.4. The events are marked in the chart below.

Figure 5. Return effect of score vintages against the July 2025 baseline, re-optimisation calendar fixed. Source: AFII analysis; data: Bloomberg Finance L.P., S&P Global Market Intelligence, TPI Centre and SBTi, accessed 13 Aug 2026.



With the calendar fixed, the Feb and Mar 2026 revisions together added 0.82bp cumulatively. The recent July 2026 revision reduced returns by 1.19bp when applied against the old-score baseline. The overall impact (all vintages) is 0.55bps. The two effects do not add to 0.55bp because the portfolios interact through turnover as optimisation changes other portfolio positions. The economic effect is small and path-dependent. These changes are not what moves the market, and they should be expected to be small compared to, say, liquidity constraints. However, this approach does lend itself to evaluating a number of alternative datasets and understanding their contribution to performance. In doing so we can quantify the value of new data and show there is small value in doing so.

Conclusions

This paper tested whether a diversified Euro investment-grade portfolio can improve its transition profile without materially changing its conventional credit characteristics. The Co_2liseum portfolio improved the transition score by 41% while delivering the same 1.59% cumulative return as the benchmark over the test period. The comparison with the Market PAB also highlights the two dimensions of climate alignment: the PAB leads on current emissions, while the Co_2liseum portfolio leads on forward-looking commitments and science-based targets.

The results suggest that transition optimisation involved little sacrifice in gross total return over the study period, although implementation costs and differences in risk exposure remain relevant. The relationship between transition scores and credit spreads varies substantially across sectors. In the unadjusted analysis,

better scores are associated with little spread difference in Utilities, Energy, and Materials, but with materially lower spreads in Technology. These relationships can also change as sectoral risk evolves, as illustrated by the recent increase in volatility of the Technology sector during the test period.

Implementation costs are more tangible. Under the assumptions used here, active optimisation adds approximately 9–10bp a year of trading costs beyond natural index turnover, which any further index filtering is likely to add to. Likely liquidity and other market structure constraints would add additional costs.

The next step is to test whether these results persist across longer periods and under different market regimes, and whether alternative transition datasets and portfolio constraints improve the trade-off further. The broader finding from this study is that meaningful improvement in transition does not necessarily require large sector exclusions or a material sacrifice in portfolio characteristics. The challenge is increasingly one of **selecting the right issuers within sectors and deciding which transition information is worth paying attention to and incorporating into the portfolio.**

Appendix: how the figures are calculated

Universe and composition. All three portfolios are drawn from the Bloomberg Euro Corporate Index as of 31 July 2025, and as reconstituted on 29 June 2026. Each portfolio is held forward and repriced daily to 13 Aug 2026 and rebalanced at each month-end to its target weights, renormalised over the bonds priced that day.

Total return. Returns are struck from a capital book. EUR10 billion is deployed into par amounts in hundred-thousand lots at each month-end and held through the month. The implementation starts from floor lots and adds only affordable lots that reduce target-value error, so par and cash remain non-negative at every rebalance. For each bond each day, the price return is the change in clean price and income is the change in accrued interest, with an inferred coupon added on the day accrued interest resets. If the accrued drop exceeds the static coupon, the inferred payment is raised to the accrued drop, so a coupon event cannot create negative income. Coupons accrue as cash and are reinvested at the next rebalance. Portfolio value is clean market value plus cash, and the daily return is its change. The active return comparison between Co_2liseum and the modelled index is unaffected by any price feed gap because both books are priced from the same S&P source.

Weighted characteristics. Z-spread, duration, and other metrics are market-value-weighted over each portfolio's holdings; z-spread and duration are the fields the optimiser holds at index level.

Transition metrics. The Co_2liseum transition score is AFII's issuer-level transition score. Lower scores are better, weighted by market value and measured on the July 2026 vintage for all three portfolios. The score brings together historical GHG performance through carbon over enterprise value with forward-looking TPI transition-pathway data, then applies a one- or two-notch improvement using AFII's five-level SBTi scale. The separate SBTi table reports the underlying target status and timing. Green bonds are scored zero; to stop that inflating green holdings, the optimiser holds the green-bond group within three points of the index weight, landing the portfolio's green weight at about 15% against the index's 12% and the ETF's 14%. Emissions intensity, carbon footprint, and carbon over enterprise value are issuer-level, joined by issuer, and reach roughly 94% of index weight. Science-based-target status is from the Science Based Targets initiative and transition paths from the Transition Pathway Initiative. Direct TPI coverage is limited, and sector-average paths extend the chart to only 25% to 40% of portfolio weight. Index bonds with no transition score, about 6% of index weight, are held at their index weight rather than dropped.

Point-in-time optimisation. The Co_2liseum portfolio is re-optimised whenever the transition score is revised: at inception on the July 2025 vintage, at the February and March 2026 revisions, and on the July 2026 vintage in the extended tail, on the index composition at that date, and held forward between revisions. The optimisation is a long-only linear programme that minimises the duration-weighted Co_2liseum score. It requires full investment, matches duration and z-spread to the index, keeps sector and bond-group weights within three percentage points of the index, caps each bond at 0.13%, and limits the sum of absolute deviations from index weights to 60%; equivalent to approximately 30% one-way active share. No covariance matrix is estimated.

Score revision comparison. The fixed-calendar comparison holds the re-optimisation event dates constant across all four strategies and varies only which score vintage is used at each date: July 2025 scores only (baseline), adding the GHG vintage (Feb 2026) together with the TPI and SBTi vintages (Mar 2026), adding the

GHG vintage (Jul 2026), and all vintages combined. This separates the information value of each score revision from any rebalancing effect.

Risk and cost. Volatility and tracking error annualise daily figures at 252 days; tracking error is the annualised standard deviation of the daily return against the index and active share half the summed absolute weight differences against the index. Returns are gross of fees and transaction costs. For the implementation-cost illustration, a 10bp half bid-offer is applied to the measured traded notional of both purchases and sales.

Sector weights. The weights behind the active-weight figure can be found in Table 5.

Table 5. Portfolio weights by sector, latest composition, percent. Source: AFII analysis; data: Bloomberg Finance L.P., S&P Global Market Intelligence, accessed 13 Aug 2026.

Sector	Euro IG index	Market PAB	Co_2liseum
Financials	39.74	42.91	36.73
Industrials	9.46	10.35	6.46
Utilities	8.72	5.83	8.35
Communications	7.21	11.24	10.22
Consumer Staples	7.21	1.99	10.21
Consumer Discretionary	7.04	5.3	5.67
Health Care	6.08	7.49	9.09
Real Estate	4.23	6.15	5.94
Materials	3.98	0.77	1.41
Energy	3.18	0.7	0.77
Technology	2.63	7.26	4.42
Unclassified	0.5	0	0.75

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