



Index Insights | Sustainable Investment – Analytics

Deliberate decarbonisation

Measuring transition intent with
TPI MQ scores

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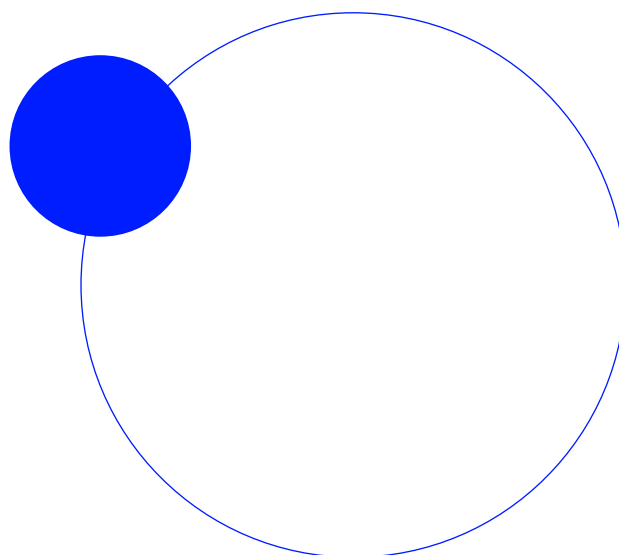
Introduction

This paper examines the relationship between the Management Quality (MQ) scores of the Transition Pathway Initiative (TPI) among FTSE All-World Index constituents and annualised changes in their scope 1 and 2 carbon intensity and absolute emissions.

Our analysis demonstrates that, all else equal, companies with high TPI MQ scores:

- are more likely to reduce their emissions and
- deliver larger emissions reductions than those with low TPI MQ scores.

This makes TPI MQ scores a useful tool for investors to identify companies more likely to decarbonise in the future.



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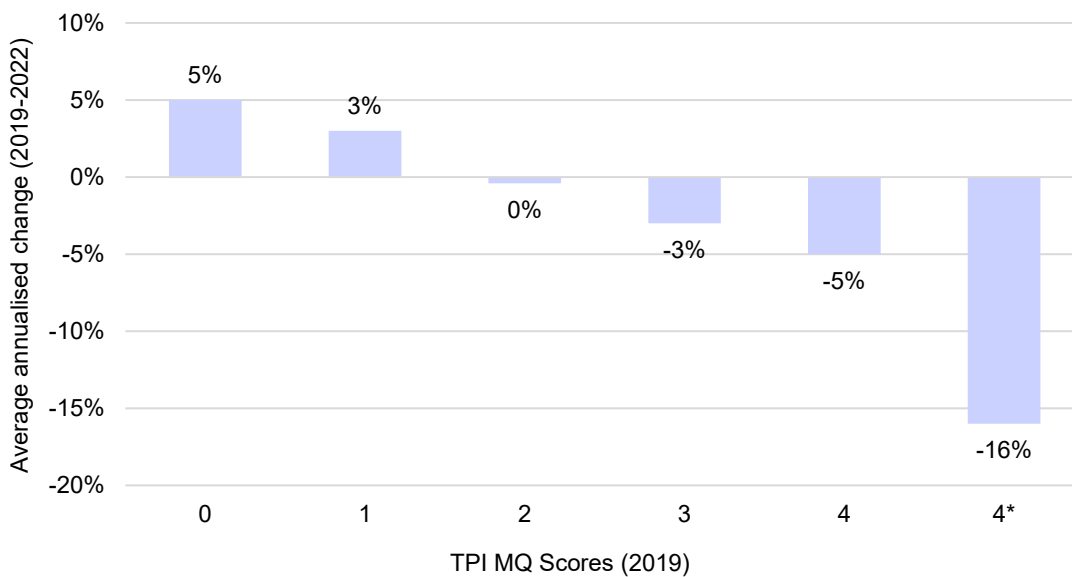
Executive summary

While companies around the world are increasingly ramping up efforts to transition toward net-zero, investors are looking for ways to reward front runners and engage with laggards. However, management measures adopted by companies to reduce emissions can take several years before producing real world reductions. Simply looking at historical carbon emissions reductions or emissions reductions targets may not provide a complete picture. Investors, therefore, need a way to measure the quality of climate transition commitments and management to complement emissions-based metrics.

The Management Quality (MQ) scores of the Transition Pathway Initiative (TPI) are based on a transparent and robust assessment methodology that can serve as a data-led input into the dialogue between investors and management on transition strategies¹. Data for nearly 600 companies is currently available free-of-charge on the TPI website for a wide set of use cases. In addition, FTSE Russell calculates TPI MQ scores for more than 7000 companies (*chart 2*), covering 89% of constituents in the FTSE All-World Index and over 94% of the index’s market capitalisation by the end of 2022. With more than 130 investors having pledged their support for the TPI globally, representing over \$50 trillion in combined assets under management and advice, the TPI MQ scores are now among the most commonly used tools for assessing climate transition management among the investor community.

High TPI MQ scores do not guarantee a future decarbonisation trajectory or outcome. But our analysis demonstrates that all else equal, companies with high TPI MQ scores: a) are more likely to reduce their emissions in the future and b) and on average deliver larger emissions reductions than those with low TPI MQ scores (*chart 1*). This can make TPI MQ scores a useful leading indicator of corporate decarbonisation in an investment context.

Chart 1: Average annualised change in scope 1 and 2 carbon emissions per TPI MQ score in FTSE All-World (N=2075)



Source: FTSE Russell, June 2023.

¹ [Explainer: The Transition Pathway Initiative: Environmental Finance \(environmental-finance.com\)](https://www.environmental-finance.com/explainer/the-transition-pathway-initiative/).

Indeed, when used in combination with traditional carbon metrics such as carbon emissions or emissions intensity, the TPI MQ scores can help investors to:

- **Engage with companies on transition efforts.** Use TPI MQ scores as key performance indicators (KPIs) to flag companies that are climate transition leaders and laggards. This provides an evidence base for corporate engagement on transition risk and a transparent benchmark to track corporate climate management measures.
- **Track and report on transition risks in portfolios.** Use TPI MQ scores to identify parts of the portfolio that lack adequate transition strategies and track transition readiness over time. This can complement carbon footprints or historical emission trajectories—e.g., as part of Task Force on Climate-Related Financial Disclosures (TCFD) reporting.
- **Manage transition risk exposure and support security selection/portfolio construction.** TPI MQ scores can be a useful input to security selection—particularly in carbon intensive sectors. Also, they are used increasingly as factor in the construction of climate-aligned indexes, such as the FTSE TPI Climate Transition Index.

TPI MQ scores: Assessing management's climate transition readiness

TPI MQ scores are based on a qualitative assessment of how companies manage climate risks and implement their transition plans. The scores were developed by the Grantham Research Institute on Climate Change and the Environment at the London School of Economics and Political Science (LSE) together with FTSE Russell in 2017, based on the TCFD recommendations².

By focusing on climate commitments and risk management measures, the TPI MQ scores gauge management's willingness to decarbonise and the company's focus on addressing material climate risks to its business model. In a portfolio management and corporate engagement context, this provides a critical complement to other key climate metrics, such as companies' carbon emissions (e.g., carbon footprint); alignment assessments (e.g., TPI Carbon Performance or Implied Temperature Rise scores); or exposure to climate solutions (e.g., green revenue share). Since its inception, various other initiatives and commercial data providers have emulated key elements of the TPI MQ scoring approach, typically as a subcomponent of some type of broader 'transition assessment' (see Table 1).

Table 1: Overview of major climate transition assessments

Assessment	Organisation/owner	Main features of management-related indicators
TPI MQ Scores	Transition Pathway Initiative	Assesses the quality of climate governance, management measures and transition planning using a staircase methodology that requires companies to meet specific 'gating' indicators to move from one level to the next. TPI MQ scores are currently available for nearly 600 companies on the TPI website and for more than 7000 companies as part of the FTSE Russell TPI MQ data set.
Climate Action 100+ Company Benchmark³	Climate Action 100+	Covering c. 160 large emitters. Assesses the performance of companies against three high-level goals: emissions reduction, governance, and disclosure. Data on corporate disclosures for the benchmark is provided by the TPI Centre with support from FTSE Russell. Its key climate management metrics broadly align with TPI MQ indicators.
Assessing low-Carbon Transition (ACT)⁴	CDP and ADEME	Assesses how ready companies are to transition to the low-carbon economy for over 500 participating companies. The assessment's 'generic methodology' is based on a series of nine performance indicators. A management indicator comprises elements such as climate oversight, transition planning, management incentives and use of scenario analysis.
Business Model Transition Scores⁵	Bloomberg New Energy Finance	Tracks how oil, gas, utilities, and mining companies adapt to the climate transition. The methodology is based on two pillars: risk exposure and adaptation. As part of the latter, management practices are assessed, including disclosure of climate risks and opportunities, use of scenario analysis, and adoption of internal carbon pricing.
Low Carbon Transition Risk (LCT) Management Scores⁶	MSCI	Assesses companies' exposure to transition risks and opportunities focusing on risk exposure, risk management and transition performance. The risk management scores focus on management of climate risks and opportunities using indicators, including climate policy, commitments, targets, as well as governance structures.
Low Carbon Transition Ratings⁷	Morningstar Sustainalytics	Measures the degree to which companies' projected carbon emissions differ from a net-zero pathway, combining exposure and management actions. Part of the assessment concerns the management preparedness of companies for the low-carbon transition, using various climate governance and risk management metrics.

² Since 2022, the scores are co-produced by the Transition Pathway Initiative Global Climate Transition Centre (TPI Centre) and FTSE Russell.

³ [Net Zero Company Benchmark | Climate Action 100+](#).

⁴ [Assess your strategy – actinitiative.org \(actinitiative.org\)](#).

⁵ [Climate Transition Score \(bbhub.io\)](#).

⁶ [MSCI Climate Change Indexes Methodology](#).

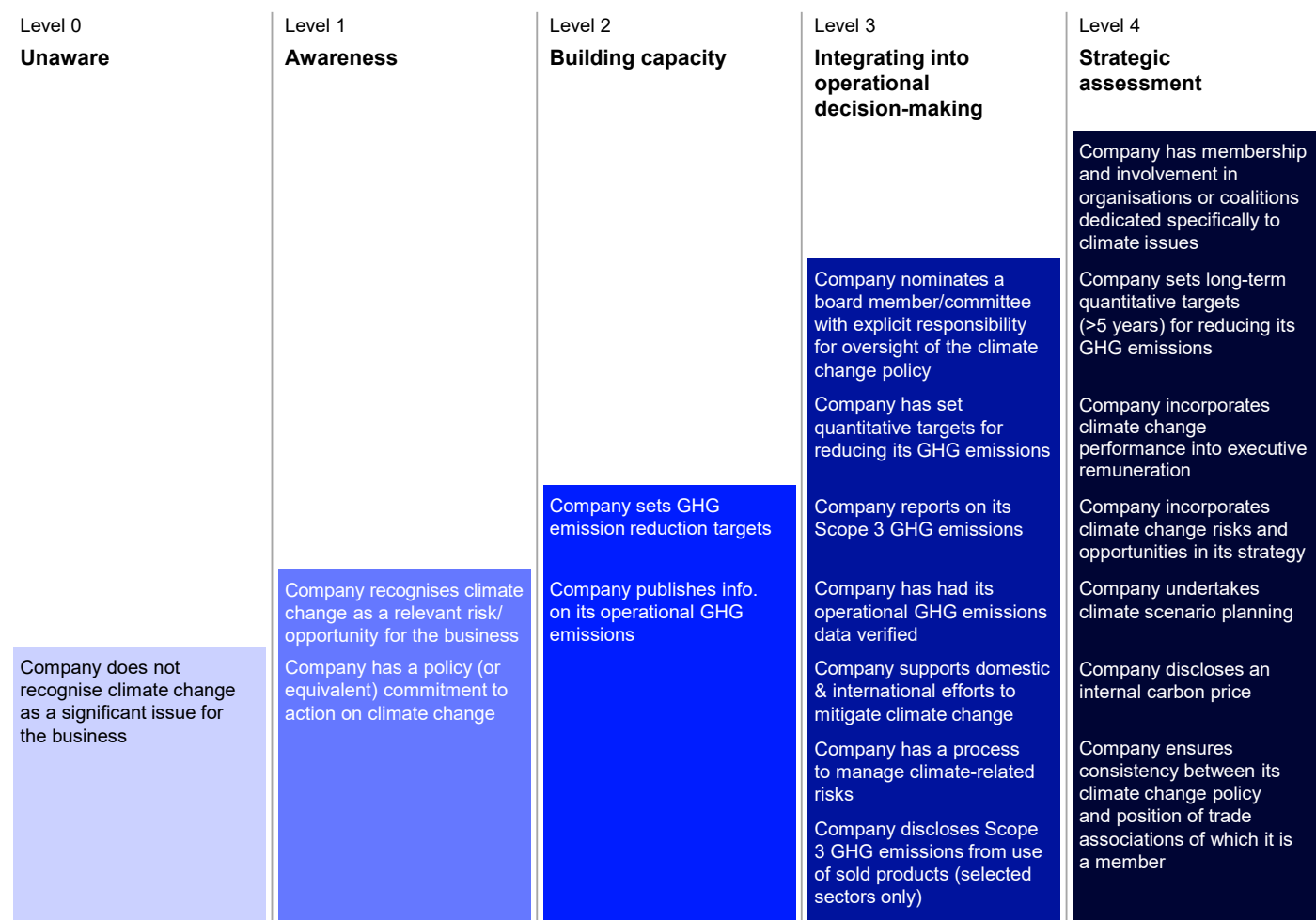
⁷ [Low Carbon Transition Ratings \(sustainalytics.com\)](#).

Calculation methodology and data coverage

The TPI MQ scores are based on a set of FTSE Russell management indicators, including climate policy, risk and opportunity assessment, carbon emissions reporting, emissions reduction targets, executive remuneration, as well as strategic and operational integration. The assessment uses a 'staircase' approach that aggregates indicators into an overall score comprised of five levels from 0 to 4*⁸. Companies need to meet a certain set of indicators to move from one level to the next and need to meet all indicators to qualify for the highest level (*figure 1*).

This staircase approach ensures that the assessment reflects a sequential progression of climate management practices, whereby companies are required to implement foundational climate measures before being assessed on more advanced management metrics.

Figure 1: TPI Management Quality Staircase



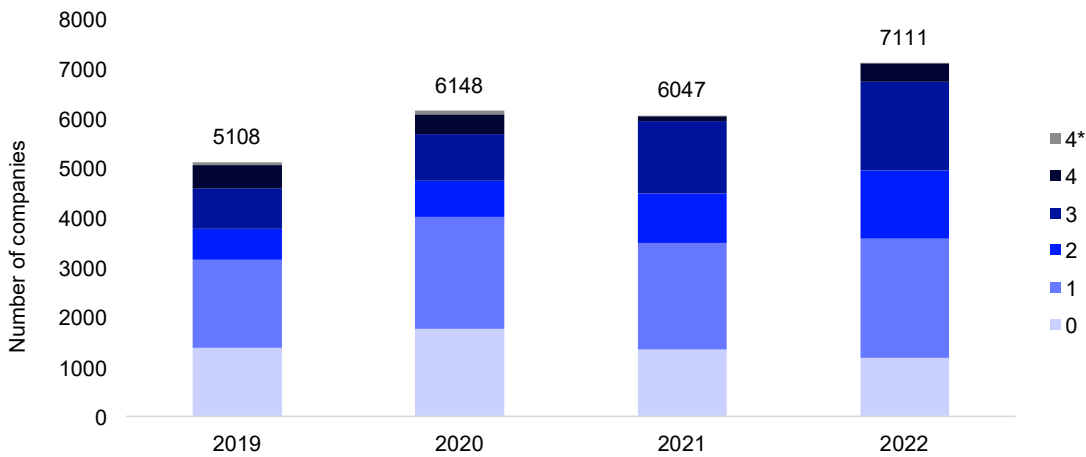
Source: TPI's methodology report: Management Quality and Carbon Performance, Version 4.0, Nov. 2021, p9. URL: [90.pdf \(transitionpathwayinitiative.org\)](#).

⁸ The highest level of 4* was added in 2020, prior to which the score range went from 0 to 4.

The coverage of the TPI MQ assessment has been gradually expanding since its inception. Data for nearly 600 companies is currently available free-of-charge on the TPI website for a wide set of use cases. In addition, FTSE Russell calculates TPI MQ scores for more than 7,000 companies (chart 2), covering 89% of constituents in the FTSE All-World Index and over 94% of the index’s market capitalisation by the end of 2022.

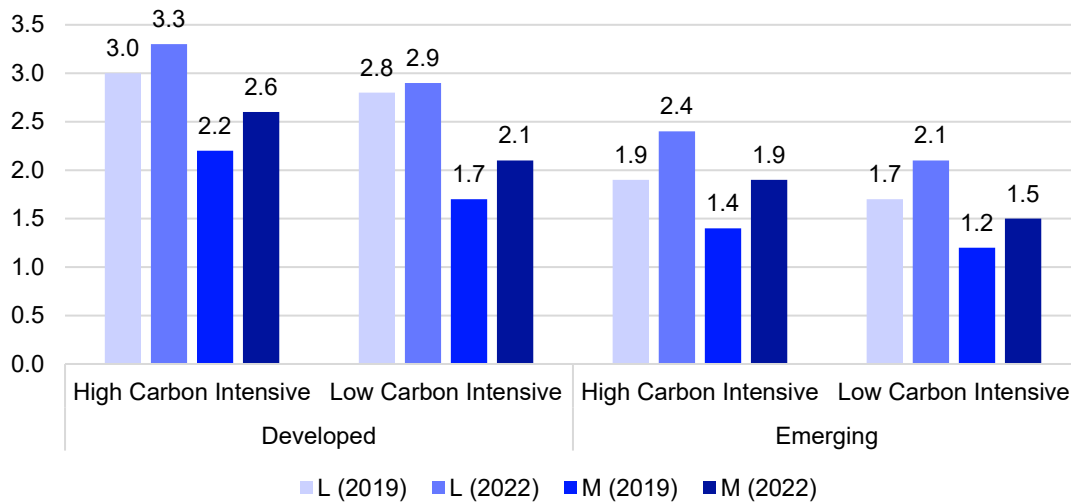
We observe that high TPI MQ scores are concentrated in developed markets, especially among large-sized and carbon-intensive sectors. Companies sharing all three characteristics (large, developed market companies, in carbon intensive sectors) on average now score above 3 (see Chart 3), almost double the average of our coverage (1.7).

Chart 2: Universe and distribution of FTSE Russell’s TPI MQ scores between 2019–2022



Source: FTSE Russell, June 2023.

Chart 3: Average TPI MQ scores by carbon intensity of industries (High vs Low), by market (Developed vs Emerging) and by size (Large vs Medium capitalisation)



Source: FTSE Russell, June 2023.

How TPI MQ scores are used by investors

TPI MQ scores are a versatile tool that has been applied in a number of different contexts:

- **Corporate engagement.** TPI MQ scores were first constructed as a tool to support asset owners in evidence and data-led engagement of portfolio companies, with the TPI initiative named ESG Assessment Tool of the Year by Environmental Finance in 2020⁹. This remains a primary use case for TPI MQ data. Over 130 investors globally have pledged support for the TPI, jointly representing over \$50 trillion in combined assets under management and advice¹⁰. The TPI MQ scores can help investors systematically track companies' climate transition commitments. Glasgow Financial Alliance for Net Zero (GFANZ) describes MQ scores as "...assessment tools to evaluate the credibility of transition plans and for investors to collaboratively engage companies"¹¹.
- **Portfolio footprinting and Climate/TCFD reporting.** TPI MQ scores can help analyse to what extent carbon intensive parts of portfolios are actively transitioning in a standardised and quantified way¹². For instance, the Japanese Government Pension Investment Fund (GPIF) used the scores in its 2021 Climate Report to conduct a footprint analysis of its portfolio¹³. HSBC Bank's UK Pension Scheme uses TPI MQ scores alongside other climate data in their TCFD reporting to gain "...insight into how well investee companies are planning to manage both their greenhouse gas emissions and the risks and opportunities arising from transitioning to a low-carbon economy"¹⁴.
- **Portfolio selection and index construction.** TPI MQ scores are used in portfolio selection and as an input for the construction of climate transition indexes. The first FTSE TPI Climate Transition Index was launched in 2019 with the FTSE Developed TPI Climate Transition Index winning the Principles for Responsible Investment's (PRI) *ESG incorporation Initiative of the Year* award in 2020.¹⁵ There are now 12 indexes in the FTSE TPI Climate Index family, including a Net Zero Japan Index Series co-launched with the Japan Exchange Group (JPX)¹⁶. TPI indexes have been adopted by a range of asset owners and asset managers, including the New York State Common Retirement Fund (NYSCRF)¹⁷, State Street Global Advisors¹⁸, Legal & General Investment Management (LGIM)¹⁹, the Church of England Pensions Board²⁰, and Brunel Pension Partnership²¹.
- **Climate capacity building.** The London Stock Exchange (LSE) provides a Climate Governance Score to its listed issuers, which is powered by TPI MQ data. The tool, accessible online²², allows any company to calculate its own TPI MQ score to discover how investors measure its climate management practices.

⁹ Environmental Finance (2020), Sustainable Investment Awards 2020. Accessible at: [Winners: Environmental Finance \(environmental-finance.com\)](https://www.environmental-finance.com).

¹⁰ For more information on the exact list of TPI Supporters, visit the TPI website at: [Supporters - Transition Pathway Initiative](https://www.transitionpathwayinitiative.com).

¹¹ GFANZ (2022), [Expectations-for-Real-economy-Transition-Plans-September-2022.pdf \(bbhub.io\)](https://www.gfanz.com/expectations-for-real-economy-transition-plans-september-2022.pdf).

¹² Footprinting portfolios with TPI MQ scores can be conducted in several ways, including measuring the progress in the transition efforts of portfolio companies and to identify specific areas of transition risk. More advanced analysis can also be conducted to compare portfolios to a market benchmark, or through combining TPI MQ scores with other data.

¹³ Government Pension Investment Fund (2022), Supplementary Guide to GPIF ESG Report 2021 - Analysis of Climate Change-Related Risks and Opportunities in the GPIF Portfolio, pp.41-47 Available at: [GPIF CLIMATE REPORT FY2021_EN.pdf](https://www.gpiif.com/gpiif-climate-report-fy2021-en.pdf).

¹⁴ A4S Asset Owners Network (2021), Putting in place TCFD metrics, Practical example: HSBC Bank (UK) Pension Scheme. Available at: [HSBC Pensions TCFD Metrics Case Study.pdf \(accountingforsustainability.org\)](https://www.a4s.com/hsbc-pensions-tcfm-metrics-case-study.pdf).

¹⁵ [Winners of the PRI Awards 2020 | PRI Web Page | PRI \(unpri.org\)](https://www.unpri.org/winners-of-the-pri-awards-2020).

¹⁶ [FTSE Russell and JPX launch new net zero climate indices: FTSE JPX Net Zero Japan Index Series | Japan Exchange Group](https://www.ftserussell.com/ftse-russell-and-jpx-launch-new-net-zero-climate-indices-ftse-jpx-net-zero-japan-index-series-japan-exchange-group).

¹⁷ [NYS Pension Fund Commits \\$2 Billion to Climate Transition Index | Office of the New York State Comptroller](https://www.nyscrf.com/nyscrf-commits-2-billion-to-climate-transition-index-office-of-the-new-york-state-comptroller).

¹⁸ [Fact Sheet: World TPI Climate Transition Index Equity Sub-Fund, Mar2023 \(ssga.com\)](https://www.ssga.com/fact-sheet/world-tpi-climate-transition-index-equity-sub-fund-mar2023).

¹⁹ [LGIM launches climate transition index fund | Legal & General \(legalandgeneral.com\)](https://www.legalandgeneral.com/lgin-climate-transition-index-fund).

²⁰ [FTSE TPI Climate Transition Index | The Church of England](https://www.thechurchofengland.com/ftse-tpi-climate-transition-index).

²¹ [Brunel transitions £3bn+ of passive funds to new FTSE Russell Paris-aligned benchmarks - Brunel Pension Partnership](https://www.brunel-pension-partnership.com/brunel-transitions-3bn-of-passive-funds-to-new-ftse-russell-paris-aligned-benchmarks).

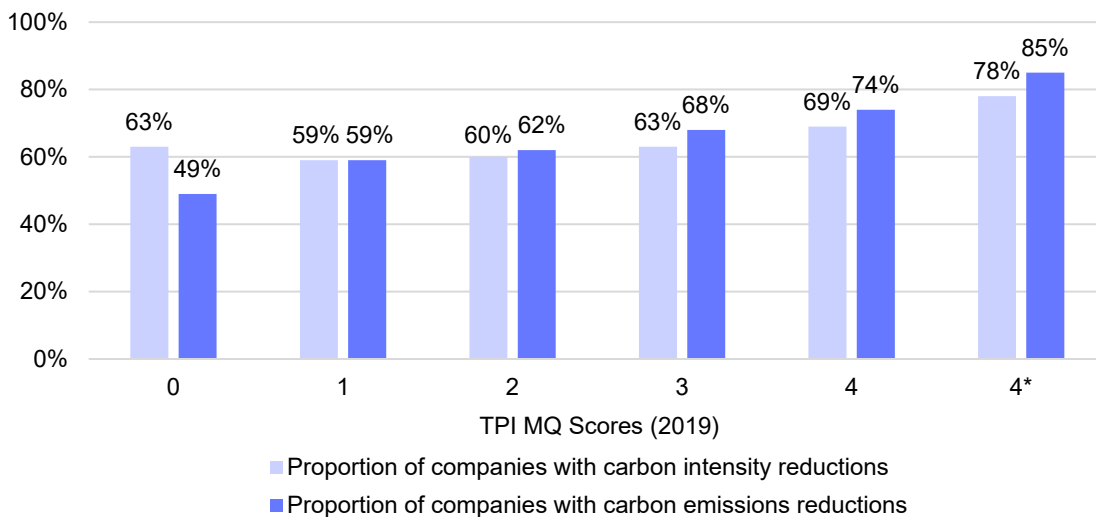
²² [Climate Governance Score | Sustainable Finance | LSEG](https://www.lseg.com/climate-governance-score).

TPI MQ scores: A leading indicator of corporate decarbonisation

By their nature, TPI MQ scores are subject to the constraints of a qualitative assessment based on the companies’ own disclosures. They only assess information disclosed by the companies themselves. This information is translated into management, rather than performance-focused, binary metrics, which are then aggregated into an overall score.

Nonetheless, we find a material empirical link between TPI MQ scores and the propensity of companies to decarbonise in the future. We examine the relationship between the 2019 TPI MQ scores of FTSE All-World Index constituents and the average annualised change in their scope 1 and 2 carbon intensity and emissions between 2019 and 2022. We observe that high TPI MQ scorers (levels 3 and above) are more likely than low scorers (levels 1 and 2) to reduce their emissions (*chart 4*). They also show significantly larger reductions²³ both for carbon intensity (*chart 5*) and absolute emissions (*chart 6*). Indeed, during 2019–2022, the small number of companies scoring 4* (all indicators met) decreased their carbon emissions the most—a 16% decrease in the average annualised change of their emissions, compared to a 5% increase for companies scoring 0 (*chart 6*).

Chart 4: Proportion of companies having reduced the average annualised change of their carbon intensity and emissions over 2019-2022 per TPI MQ score in FTSE All-World²⁴ (N=2075)



Source: FTSE Russell, June 2023.

²³ Note that a decrease in emissions and intensity could be due to spinning off of high emitting assets and may not necessarily correspond to real-world emission reductions.

²⁴ Sample size of 2075 FTSE All-World constituents in 2019 that had TPI MQ scores in 2019 as well as reported scope 1 and 2 carbon emissions data in both FY2019 and FY2022. Note that extreme annualised changes in carbon intensity and emissions between 2019-2022 (less than the 1st percentile or greater than the 99th percentile) have been winsorised, replacing the extreme values with the 1st and 99th change thresholds respectively. For more information, refer to Appendix 3: Methodological Considerations.

Chart 5: Average annualised change in carbon intensity per TPI MQ score in FTSE All-World²⁴ (N=2075)

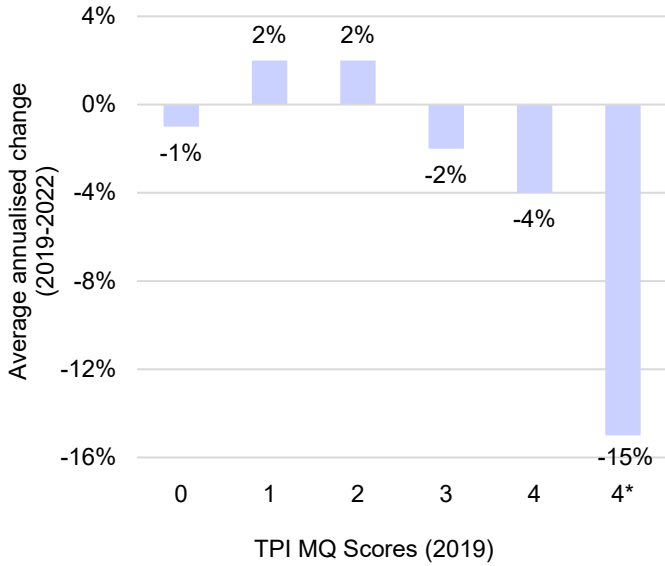
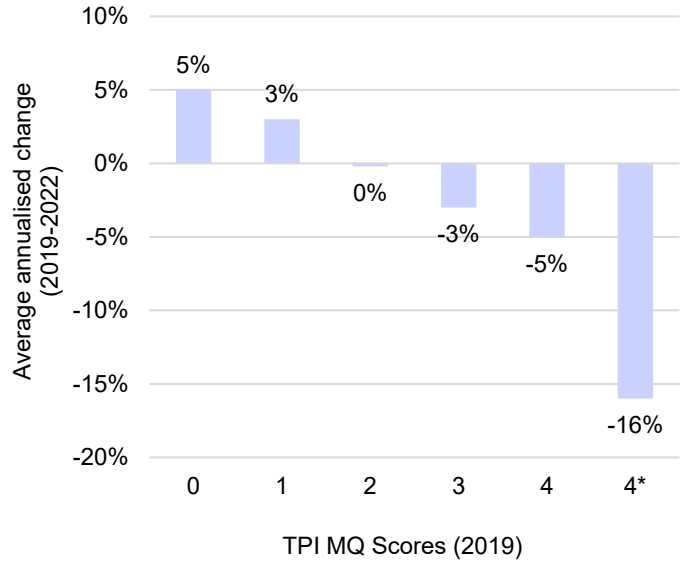


Chart 6: Average annualised change in carbon emissions per TPI MQ score in FTSE All-World²⁴ (N=2075)



Source: FTSE Russell, June 2023.

We find these trends to be broadly consistent across different specifications, such as using median (rather than average) changes²⁵ (charts 7 and 8 in appendix 1) or splitting companies between high carbon intensity and low carbon intensity, or by size classes (charts 9 and 10 in appendix 1). We also observe in chart 5 that companies scoring 0 show greater carbon intensity reductions than those scoring 1 and 2. However, these appear to be linked to changes in the normalisation factor used to calculate the intensities (here, companies' revenues) rather than actual emissions reductions. Indeed, companies scoring 0 saw the largest average increase in absolute emissions in our sample²⁶.

²⁵ In the studied sample, companies demonstrate a median change in carbon intensity of -3.7% and a median change in carbon emissions of -3.6% during 2019-2022 (see Chart 13 in Appendix 1).

²⁶ Read more on the relationship between absolute emissions and intensity measures in [Decarbonization in equity benchmarks: Smoke still rising](#).

Conclusion

While the TPI MQ scores do not guarantee a future decarbonisation trajectory or outcome, our analysis demonstrates that all else equal, companies with high TPI MQ scores are more likely to decarbonise and on average decarbonise faster than those with low TPI MQ scores. We believe that this is because of the significant lag between companies committing to comprehensive transition strategies and adopting concrete decarbonisation measures—an intent which is reflected in TPI MQ scores—and the time it takes for such efforts to be clearly reflected in real-world emissions reductions. This suggests that, by measuring the quality of companies' climate management, TPI MQ scores also provide a gauge of management's decarbonisation intent, which is a valuable signal for future decarbonisation. This makes the scores a useful tool for investors to identify companies that may not yet be delivering emissions reductions but that are well positioned to do so in the future.

Appendix 1: Chart book

Chart 7: Median change in carbon intensity over 2019–2022 per TPI MQ score

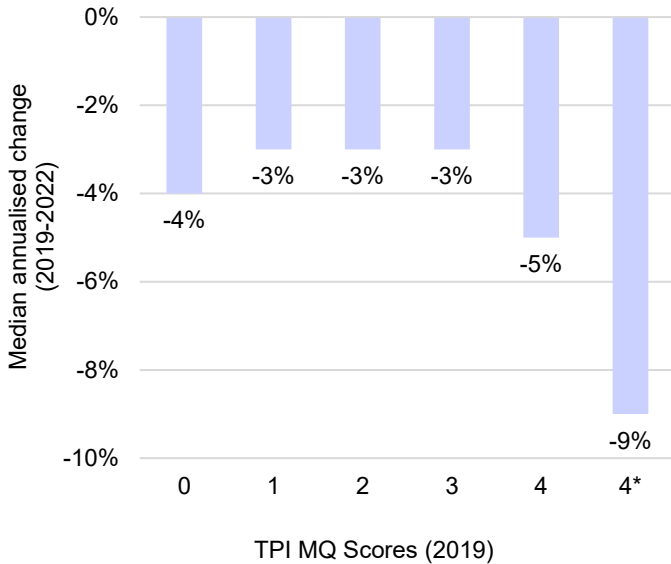
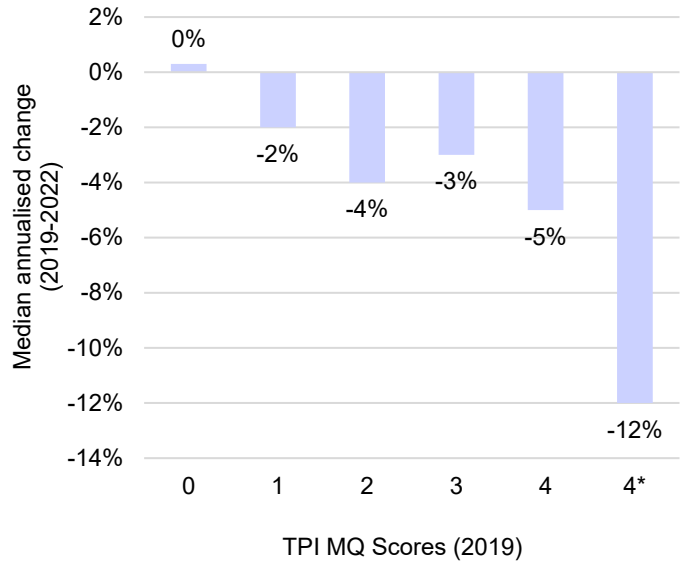


Chart 8: Median change in carbon emissions over 2019–2022 per TPI MQ score



Source: FTSE Russell, June 2023.

Chart 9: Average change in carbon intensity per TPI MQ scores by industry type

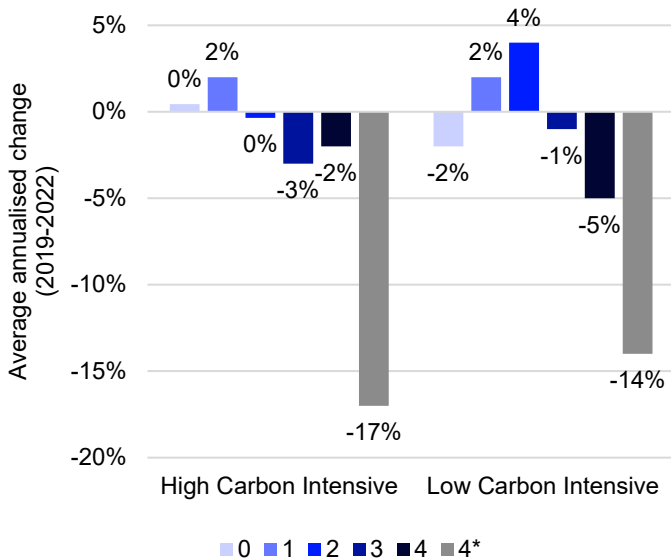
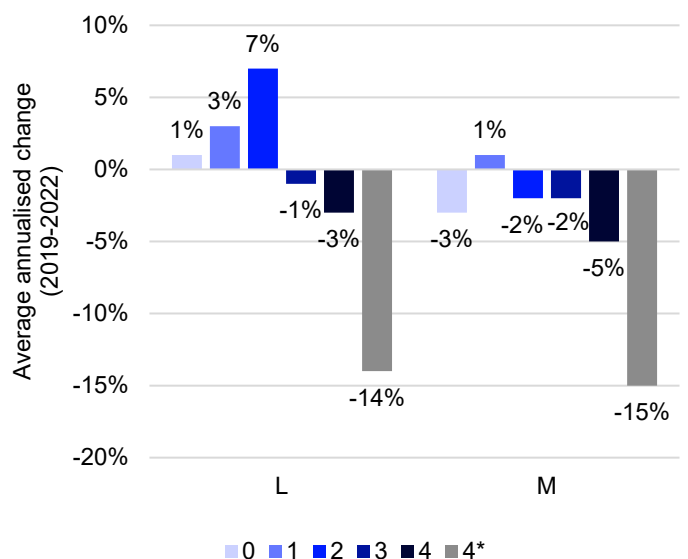


Chart 10: Average change in carbon intensity per TPI MQ scores by size (Large and Medium)



Source: FTSE Russell, June 2023.

Chart 11: Distribution of change in carbon intensity per TPI MQ score

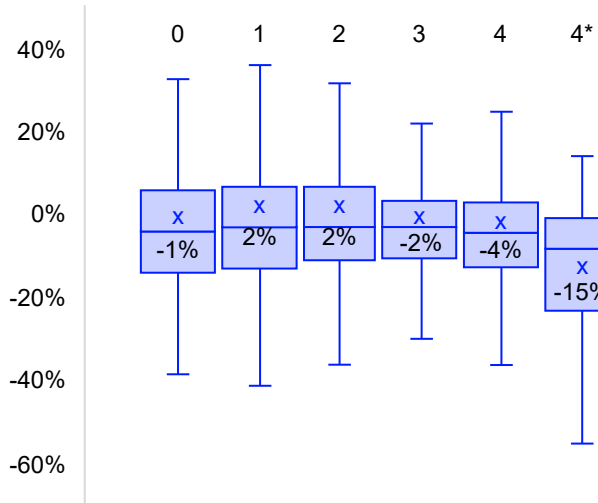
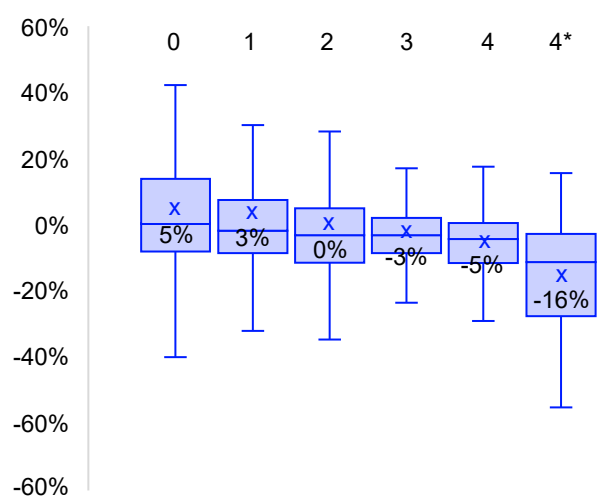
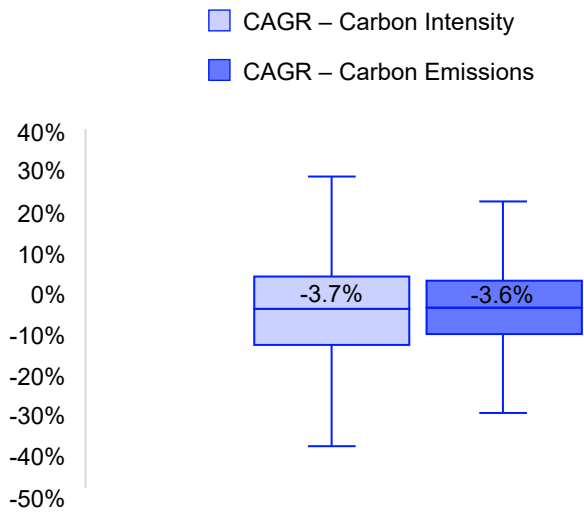


Chart 12: Distribution of change in carbon emissions per TPI MQ score



Source: FTSE Russell, June 2023.

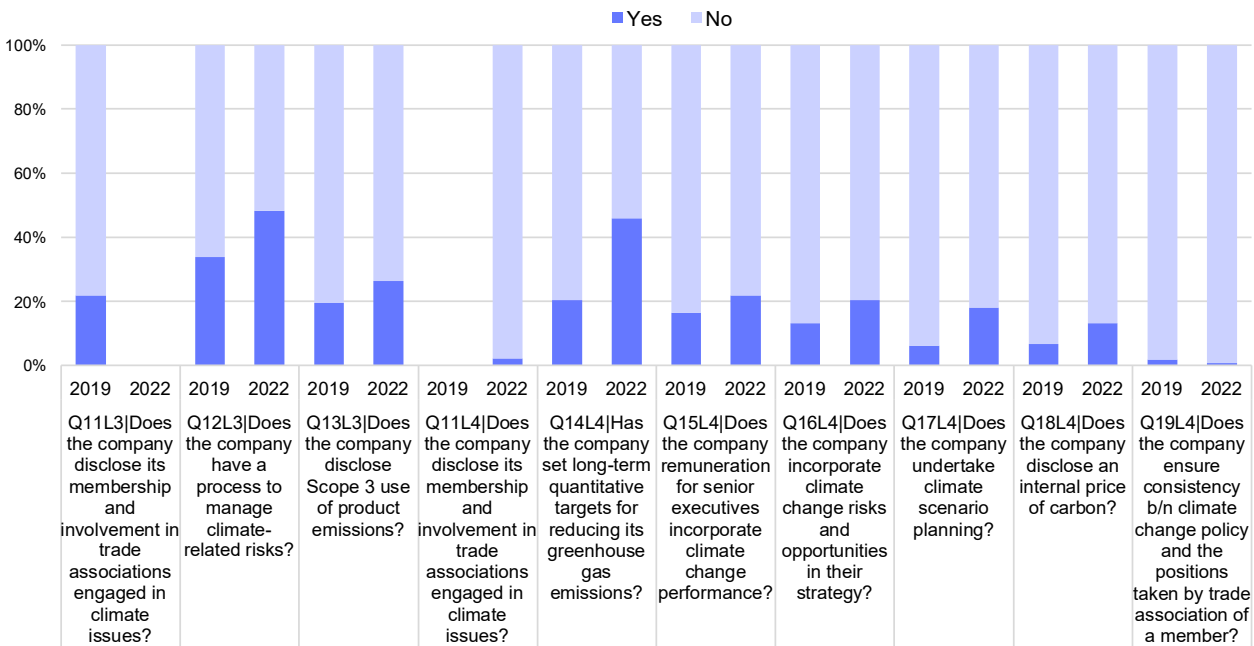
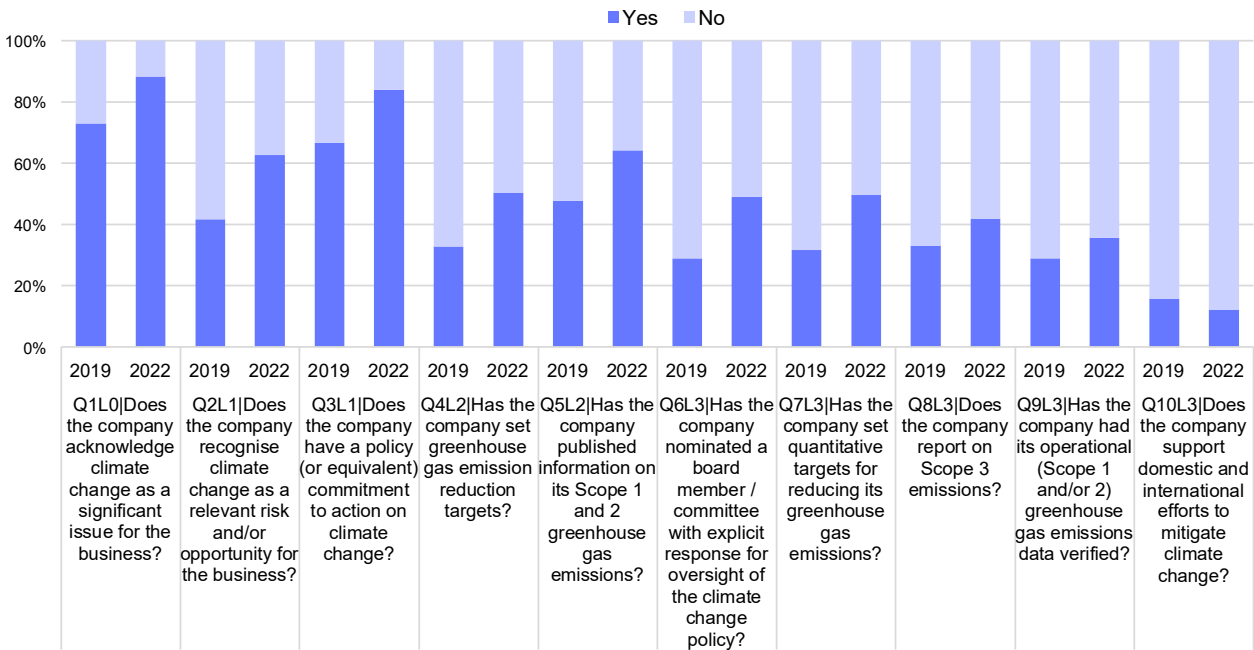
Chart 13: Distribution of Compounded Annual Growth Rate (CAGR) in carbon intensity and absolute emissions in 2019–2022



Source: FTSE Russell, June 2023.

Appendix 2: Indicator level score distribution

Charts 14–15: Indicator-level TPI MQ score progression between 2019–2022²⁷



Source: FTSE Russell, June 2023.

²⁷ The sample size for charts 14 and 15 is the consistent universe of all 5108 companies that had a TPI MQ score in 2019 for comparability purposes.

Appendix 3: Methodological considerations

- **Carbon Intensity and Emissions.** For our analysis, we are calculating the annualised change of reported scope 1 and 2 carbon intensity and emissions from FY2019 to FY2022 for companies continuously reporting carbon data over this period. In our sample, 2,075 companies have continuously reported emissions from FY2019 to FY2021, among which 527 companies have another year of reported emissions until FY2022²⁸. This means that in our analysis in charts 4 to 13, we are annualising based on the amount of available data disclosed for each company.
- **Inflation adjustment.** Values for carbon intensity have been adjusted against the US GDP deflator as retrieved from the World Economic Outlook database of the International Monetary Fund. Company specific revenue data are converted to USD according to the local, point-in-time exchange rate. Note that inflation is adjusted as of year 2022, deeming the inflation to be 10%.
- **Definition of Year.** Note that the year used in the TPI MQ data refers to the year the MQ assessment was conducted, whereas the year used in carbon emissions data refers to companies' financial year.
- **Other considerations.** TPI MQ scores are based on corporate disclosures available at the time of the assessment. Where companies retroactively disclose relevant information for a past period, this does not result in an adjustment to historical TPI MQ scores. For example, a company that discloses a 2019 emissions figure for the first time as part of its FY2021 disclosures will not see this reflected in its historical 2019 TPI MQ score. By contrast, these newly updated emissions disclosures are integrated into our carbon emissions data. Within the context of the analysis of this paper, this may result in a small number of companies that are considered to 'report' their operational emissions in 2019 and yet receive a TPI MQ score of 0 (which, as per the TPI MQ methodology, should mean that they do not disclose operational emissions, otherwise they would receive a score of at least 1).

²⁸ Refer to [Mind the gaps: Clarifying corporate carbon](#) for more details on FTSE Russell's estimation strategies on Scope 1&2 carbon emissions.

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