Cumulative Benchmark Divergence (CBD) – Implementation Guidance

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This document and accompanying spreadsheet complements our updated "<u>Assessing</u> <u>climate target alignment with Cumulative Benchmark Divergence: From asset to portfolio</u> <u>alignment</u>" paper by providing members with detailed implementation guidance for its use at both asset and portfolio level. It sets out:

- a. where the relevant source data can be obtained from,
- b. how CBD is calculated from that data and;
- c. the investor processes for which it may be relevant.

With the aim of promoting standardisation and transparency across the industry, it also introduces CBD<sub>i</sub> and CBD<sub>pwe</sub> as recommended methods to calculate CBD at the asset and portfolio level respectively.

Finally this document sets out areas of further relevant work which IIGCC is undertaking to develop the core methodology and broaden its application. Members keen to get involved with this work should contact Sarah Findlay (Investor Relations Manager) at sfindlay@iigcc.org.

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# Implementing at the asset level (CBDi)

Members can view CBD scores for over 400 companies in the most emissions-intensive sectors <u>here</u>. These scores are derived from <u>publicly available data</u> produced by the TPI. Disclosures on, and assessments of, corporate emissions and decarbonisation targets are steadily increasing due to stakeholder expectations and heightened reporting requirements, and there are major expansion efforts underway by providers (1).

We anticipate that sovereign bond analysis provided by TPI for the <u>ASCOR</u> framework may provide similar data, assessing the alignment of country pathways based on Nationally Determined Commitments (NDCs) in due course. This data may be used to calculate CBD for assessing the transition risk of sovereign bonds (see Areas of relevant further work).

For now, alignment data available from the TPI is primarily based on emissions intensity. Absolute emissions pathways are relevant for some sectors and may also become available in due course. Much of the guidance here would apply to using absolute emissions (for more detail see "<u>Carbon intensity or absolute emissions?</u>").

Investors can calculate an asset level CBD score by applying the following formula:

Equation 1: Calculating asset level CBD (CBDi)

$$CBD_{i} = \frac{\sum_{t=2019}^{2050} CP(t) - \sum_{t=2019}^{2050} B(t)}{\sum_{t=2019}^{2050} B(t)}$$

Where CP = Company Pathway, B = Benchmark

For example: TotalEnergies  $CBD_i = (2243 - 1429)/1429 = 0.5696 = 57.0\%$ 

As set out in the accompanying paper (see <u>CBD metrics in context</u>), where CBD<sub>i</sub> score is  $\leq 0$  investors can consider that company has a science-based target. Additionally, the ability of CBD<sub>i</sub> to capture the degree of divergence of an entire company pathway relative to a benchmark, in a single metric, means that it overcomes many of the downsides of existing approaches to assessing targets. Investors may wish to consider its potential in the following processes:

- a. Asset selection: CBD: provides a useful indication of transition risk which can be incorporated into investment processes including screens or weightings including identifying "best in class" companies in emission intensive sectors.
- **b. Engagement:** CBDi can help investors prioritise the engagement of high emitting and misaligned sectors or companies. Quantifying the relative performance of sectors may assist investors focus limited engagement resources. By recognising improvements in targets, even where they are not aligned, CBDi effectively incentivises companies to increase ambition. This may lead to more fruitful engagement conversations, particularly in regions where the policy environment makes alignment difficult. As a relatively objective measure of alignment, improvements in CBDi over time can also be used to monitor the success of engagement activities.
- **c. Voting (a sub-set of engagement):** To align with an investor's net zero commitment and broader engagement and stewardship activities, CBD<sub>i</sub> can be built into investor voting policies for priority companies (for further details, please see IIGCC's <u>Net Zero Voting paper</u>).
- d. Selective divestment: if, potentially after a period of engagement, the company CBD<sub>i</sub> score remains high an investor may wish to factor this into a decision to divest.

Emission target alignment is a useful indication of transition risk but combining it with other metrics provides a fuller perspective. Therefore, just as with existing, more established, approaches to assessing targets, investors may wish to consider using the CBD<sup>i</sup> metric in conjunction with other criteria.

Relevant criteria, alongside the alignment categories and process, are set out in the <u>Net Zero Investment Framework</u> (NZIF). These correspond to indicators of the Climate Action 100+ Disclosure Framework and components of the <u>Investor</u> <u>Expectations of Corporate Transition Plans</u>. Additional sector-specific metrics can be found in the Net Zero Standards developed by IIGCC and CA100+ network partners (<u>Oil & Gas</u> and <u>Diversified Mining</u>) and range of frameworks developed by other parties including TPI's Management Quality scores. We are conducting further work to establish how combining CBD<sub>i</sub> with additional criteria, such as decarbonisation strategy and emissions performance, could further enhance its value (see areas of relevant further work).

# Implementing at fund and portfolio level

Individual asset level CBD<sub>i</sub> scores (see above) can be aggregated to indicate the transition risk of a portfolio. Given current data limitations, this assessment is likely to cover a relatively small number of companies currently. However, the data does cover many of the largest listed companies in the most emissions-intensive sectors. Given the advantages of this approach, we recommend that investors consider using this methodology where the data is available.

Investors can incorporate asset level CBDi data to gain some understanding of fund and portfolio level transition risk in three ways:

- i. Binary coverage assessments. For the portion of the portfolio where data is available, the fraction of assets that can be considered to have science-based targets (i.e. where CBDi ≤ 0) can be calculated. This binary approach can be used as an alternative to SBTi approval or to extend coverage where no SBTi data is currently available.
- **ii. Portfolio CBD score.** For the portion of the portfolio where data is available, CBD<sub>i</sub> scores can be integrated from the asset level to yield a fund or portfolio-level metric, CBD<sub>P</sub>. This variable metric objectively and quantifiably assess investors' net zero strategies and their efforts to transition their portfolios.
- **iii. Maturity scale alignment.** The classification system of NZIF includes emissions targets as one of its six core alignment criteria. CBD<sub>i</sub> can be used to measure ambition (criterion 1) and the alignment of short- and medium-term emissions targets (criterion 2) in particular.

To calculate CBD at the portfolio level, individual (asset-level) CBD scores need to be aggregated. A straight average of all scores would not reflect the exposure to, ownership or emissions footprint of each asset. Instead, it is preferable in our view to weight scores to reflect their materiality. This is also good practice when performing binary coverage assessments. To do this, investors have two main considerations:

#### 1. Attribution by exposure or ownership.

CBD scores can be aggregated by portfolio weight or equity stake. The **portfolio weight** approach weights CBD<sub>i</sub> scores according to the % of the portfolio (covered by the analysis) invested in each asset. It is effectively a risk/ opportunity exposure lens and can be applied to any asset class. Alternatively, the **equity stake** approach involves weighting CBD<sub>i</sub> scores according to the share of the company owned by the portfolio. This is an ownership lens and is only applicable to equity portfolios.

## 2. Determining climate materiality.

Weighting CBD; scores by current emissions (**emissions weighting**) helps ensure that the aggregated portfolio score reflects the likely transition risk of the portfolio and its overall climate impact. This is a robust approach that can be performed over a wide range of sectors, and, where emissions footprints are available, asset classes. However, in high-impact sectors, it arguably underrepresents the materiality of low-carbon challengers with modest emissions footprints, who can have a considerable climate impact by displacing high-carbon incumbents. For high-impact sectors, it may therefore be useful to additionally evaluate the portfolio without weighting by emissions.

The approach we consider to be most robust and widely applicable is to weight by portfolio weight and emissions. This combination is applicable across asset classes and sectors and yields portfolio CBD score, CBD<sub>pwe</sub>:

### Equation 2: Calculating portfolio CBD (CBD<sub>Pwe</sub>) weighting by portfolio weight and emissions

$$CBD_{pwe} = \frac{\sum_{i}^{N} CBD_{i}E_{i}PW_{i}}{\sum_{i}^{N} E_{i}PW_{i}}$$

A portfolio of N assets, *i*, has portfolio score CBD<sub>pwe</sub>, when each asset CBD<sub>i</sub> score is weighted its current emissions footprint, *E*<sub>i</sub>, and the portfolio weight invested in the company, PW<sub>i</sub>.

For investors instead looking to take an ownership lens, equity stake and emissions-weighted portfolio scores, CBD<sub>ese</sub>, can be computed as:

Equation 3: Calculating portfolio CBD (CBDese) using equity stake and emissions-weighted scores

$$CBD_{ese} \frac{\sum_{i}^{N} CBD_{i} E_{i} S_{i}}{\sum_{i}^{N} E_{i} S_{i}}$$

Where S<sub>i</sub> is the equity stake in each asset.

Examples of calculating portfolio level CBD for a mini portfolio consisting of equity stakes in three companies (ArcelorMittal, Shell and Volkswagen) using the approach set out in equation 2 (CBD<sub>pwe</sub>) and 3 (CBD<sub>ese</sub>) are shown Tables 1 and 2 respectively, and in the accompanying spreadsheet. This example shows how CBD scores for companies in different sectors with different emissions footprints can be aggregated. The unweighted (average) portfolio CBD for this sample is 63%, the CBD<sub>pwe</sub> score is 60.3% and the CBD<sub>ese</sub> score is 59.3%.

#### Table 1: How to calculate CBD<sub>pwe</sub> for a portfolio

|   | <b>CBD</b> i<br>(2019-2050 CBD,<br>%) | Emissions<br>scopes in<br>footprint | <b>E</b><br>(Emissions<br>footprint, Co <sub>2</sub> e<br>mt) | PW<br>(%)<br>Portfolio<br>Weight | E * PW | CBD: x E x PW |
|---|---------------------------------------|-------------------------------------|---|----------------------------------|--------|---------------|
| ArcelorMittal   | 28.6                                  | Sc. 1&2                             | 129   | 29.0                             | 37     | 1,070         |
| Shell   | 52.3                                  | Sc. 1,2&3 (cat 11)                  | 968   | 40.6                             | 393    | 20,525        |
| Volkswagen  | 110.0                                 | Sc. 3 (cat 11)                      | 287   | 30.4                             | 87     | 9,601         |
| Total   |                                       |                                     | 1,384   | 100.0                            | 517    | 31,196        |
| Portfolio CBD (CBD <sub>P7</sub> %)<br>(ΣCBDi x Ei x PWi)/(ΣEi x PWi) |                                       |                                     |   |                                  |        | 60.3          |

### Table 2: How to calculate CBDese for an equity portfolio

|  | <b>CBD</b> i<br>(2019-2050 CBD,<br>%) | Emissions<br>scopes in<br>footprint | <b>E</b><br>(Emissions<br>footprint, Co <sub>2</sub> e<br>mt) | <b>S</b><br>(Equity Stake, %) | ExS<br>(Owned<br>emission<br>footprint) | CBD: x E x S |
|--|---------------------------------------|-------------------------------------|---|-------------------------------|---|--------------|
| ArcelorMittal                                    | 28.6                                  | Sc. 1&2                             | 129   | 15.0                          | 19                                      | 553          |
| Shell  | 52.3                                  | Sc. 1,2&3 (cat 11)                  | 968   | 2.0                           | 19                                      | 1,012        |
| Volkswagen                                       | 110.0                                 | Sc. 3 (cat 11)                      | 287   | 5.0                           | 14                                      | 1,578        |
| Total  |                                       |                                     | 1,384   |                               | 53                                      | 3,143        |
| Portfolio CBD, %<br>(ΣCBDi x Ei x Si)/(ΣEi x Si) |                                       |                                     |   |                               |   | 59.3         |

The emissions footprint data needed to calculate *E* can be found in individual company websites and aggregated in products from major data vendors. To ensure consistency with the pathway being assessed, we recommend that investors use different data footprints for different sectors, as set out below and in the TPI methodology (see <u>here</u>). We will look to provide this data to members for all companies covered by TPI in due course.

#### Table 3: Emission scopes by sector used by TPI to calculate carbon performance

| Airlines | Aluminium | Autos              | Cement | Diversified<br>Mining     | Electricity<br>Utilities | Paper                              | Oil and Gas               | Shipping | Steel |
|----------|-----------|--------------------|--------|---------------------------|--------------------------|------------------------------------|---------------------------|----------|-------|
| 1        | 1&2       | 3<br>(cat 11 only) | 1      | 1, 2 & 3<br>(cat 10 & 11) | 1                        | No 1.5°C<br>Benchmark<br>available | 1, 2 & 3<br>(cat 11 only) | 1        | 1&2   |

Investors may wish to consider the potential of CBD<sub>pwe</sub> in the following:

- **Reporting on fund and portfolio level transition risk.** The numerous advantages over existing approaches (see "Portfolio-level approaches") make CBD<sub>pwe</sub> a credible way to calculate transition risk at the fund and portfolio level.
- **Target-setting at fund and portfolio level.** Unlike other portfolio-level target setting methodologies (see "<u>Portfolio-level approaches</u>"), CBD<sub>pwe</sub> targets can reflect the variation in rate of real-economy decarbonisation by sector.
- **Evaluating the impact of engagement across fund and portfolio level.** CBD<sub>pwe</sub> will change over time as companies update emissions targets. Monitoring this, particularly any change between the point at which engagements begin and end, can help evaluate the success of engagement strategies at a fund and portfolio level, including where that engagement is outsourced.
- (for asset owners) asset manager evaluation. CBD<sub>pwe</sub> can be used to evaluate the climate performance of prospective asset managers and individual funds.

As with its application at an asset level, IIGCC recommends using CBD<sub>pwe</sub> in conjunction with other criteria to assess transition risk at the fund and portfolio level.

# Areas of relevant further work

IIGCC published the original version of "Assessing climate target alignment with Cumulative Benchmark Divergence: From asset to portfolio alignment" to members in March 2023. We gratefully received both broad support for the paper and many helpful suggestions for improvement. The <u>updated version</u> and this implementation guidance aims to incorporate much of this feedback. Further work is now needed to enhance applicability and accelerate adoption.

- **Expanding coverage of assessable companies.** TPI plans to expand coverage of its Carbon Performance methodology to companies outside emissions-intensive sectors. Primarily this will require the development of a robust and scalable Carbon Performance methodology.
- Expanding coverage to asset classes beyond corporate equity. IIGCC's Transition Research is currently investigating how CBD<sub>i</sub> scores should be aggregated in a corporate debt portfolio. Beyond the corporate asset class, CBD could also be used to evaluate the divergence between country level pathways and benchmarks used to assess sovereigns such as those developed by ASCOR. IIGCC's Sovereign Bonds & Country Pathways Working Group is exploring this issue. CBD could also be incorporated into real-assets (infrastructure and real-estate) and index construction as coverage increases. Providers could use it to adjust index compositions and weightings and measure overall climate performance.
- Incorporation within NZIF 2.0. IIGCC is currently working with its members and PAII
  partners to develop NZIF 2.0. Incorporation of CBD<sub>i</sub> and CBD<sub>pwe</sub> could add utility to its
  target-setting components.
- **Combining CBD**: with other metrics to assess transition risk. This implementation guidance highlights the benefits of CBD in conjunction with other metrics to provide a rounded assessment of transition risk. IIGCC's Transition Research team will seek to establish if an additional CBD metric, one which quantifiably incorporates measures of decarbonisation strategy or emissions performance for example, would add value for investors.

For further information on these working groups, please contact sfindlay@iigcc.org.



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