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- 2Dii (Advisor)
- Allianz
- Bank of America
- BlackRock
- Bloomberg
- Cambridge Associate
- CDP (Advisor)
- Deutsche Bank
- EY
- Fulcrum
- Generation IM (Workstream chair)
- HSBC
- Institutional Investors Group on Climate Change (IGCC) (Advisor)
- Lombard Odier
- McKinsey (Advisor)
- Mirova
- Mitsubishi UFJ Financial Group, Inc.
- MSCI
- Ninety One
- Shinhan Financial
- Singapore Exchange Group
- S&P Global
- UBS
- UNEP FI (Advisor)
- Wells Fargo
- WTW

GFANZ would like to thank all those who have contributed to our work and development of this report in support of a net-zero climate transition.

Important notice
This document is a concept note produced by a workstream of the Glasgow Financial Alliance for Net Zero (“GFANZ”) focused on portfolio alignment metrics (including barriers to adoption, potential enhancements, and calling on financial sector practitioners and metric providers to share use cases) (the “Note”). For the avoidance of doubt, nothing express or implied in the Note is intended to create legal relations and the Note does not create legally enforceable obligations.

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GFANZ members have signed up to the ambitious commitments of their respective sector-specific alliances and are not automatically expected to adopt the principles and frameworks communicated within this report, although we expect all members to increase their ambition over time.
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Thank you for taking the time to review this 2022 Concept Note on Portfolio Alignment Measurement and supporting the important topic of aligning financial capital flows with the global transition to net zero.

Portfolio alignment metrics are invaluable in measuring the progress of the financial sector’s net-zero transition efforts and the alignment of portfolios to a net-zero pathway. However, to drive further adoption of portfolio alignment metrics, several challenges need to be overcome, and GFANZ is working to develop enhancements to address these challenges. Further details on GFANZ and this workstream can be found in Appendix 1.

We would like to note that this Concept Note is not a view of the final output of this workstream (including enhancements to portfolio alignment methodologies), nor does it reflect the full scope of engagement to be undertaken this year.

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**Key objectives of this Concept Note**

**THE OBJECTIVES OF THIS CONCEPT NOTE ARE AS FOLLOWS:**

- To set out the goals of the Portfolio Alignment Measurement workstream, outline our work plan for this year, and identify remaining barriers to adoption of portfolio alignment metrics.
- To share an initial view of potential enhancements to the Key Design Judgements as outlined in the 2021 Portfolio Alignment Team (PAT) report.
Section 1: Introductory remarks on Portfolio Alignment Measurement

According to the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment report\(^1\), progress towards aligning financing activities with the goals of the Paris Agreement needs to be scaled up significantly. GFANZ\(^2\) members, in their efforts to measure ambition and progress against their net-zero commitments and support a science-aligned transition to a low-carbon economy, need a consistent and sound portfolio alignment measurement methodology. Measuring alignment will provide transparency on whether the financial sector is reallocating capital flows to support the transition to a net-zero economy and builds on the implementation of sound real-economy transition plans, science-aligned net-zero pathways and how they are ultimately supported by the financial sector as articulated in their own transition plans. These are all central elements of the ongoing work in GFANZ Net-zero Transition Planning pillar.

The PAT, led by David Blood, Senior Partner of Generation Investment Management, has been establishing the foundations for the development and use of portfolio alignment metrics since 2020. While the 2020 PAT report\(^3\) set a “Key Design Judgement” framework (Table 1) for helping lenders and investors understand the current landscape of portfolio alignment metrics, the 2021 PAT report defined emerging best practice in developing metrics and how they are ultimately supported by the financial sector as articulated in their own transition plans.

Portfolio alignment metrics are a useful tool for evaluating the alignment of investment, lending, and underwriting activities with the goals of the Paris Agreement; however, they are still new and face several challenges to wider adoption. To build on the PAT’s research and findings, GFANZ has established a dedicated workstream — the Portfolio Alignment Measurement workstream, supported by 25 industry practitioners. The workstream will develop a 2022 report on portfolio alignment measurement for release ahead of COP27, with the goal of making portfolio alignment metrics fit for purpose for redirecting capital flows to supporting the net-zero transition.

The overarching objective of the workstream is to facilitate progress on adoption, convergence, and enhancement of portfolio alignment measurement. We will promote adoption by addressing barriers to implementing and using portfolio alignment metrics; we will drive convergence on emerging best practices in methodologies to help drive standards; and we will propose potential enhancements to reflect lessons learned through extensive industry engagement activities. This year, our work focuses on two distinct stakeholder groups: end users of portfolio alignment metrics and portfolio alignment metric providers.

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2 Please see Appendix 1 “About GFANZ and the Portfolio Alignment Workstream,” for more information on the history of GFANZ and the Portfolio Alignment Team.
To hear their perspectives, we have to date engaged with approximately 30 financial institutions consisting of asset managers, asset owners, banks and insurers, as well as several portfolio alignment metric providers.

**Objectives of GFANZ Portfolio Alignment Measurement Workstream**

**Adoption**
Promoting adoption through addressing barriers to developing, implementing, and using portfolio alignment metrics

**Convergence**
Driving convergence on best practice approaches to portfolio alignment methodologies, by shining a light on trends and decision points in methodologies which are beginning to display commonalities

**Enhancement**
Designing enhancements to the PAT methodology by reflecting real-world lessons learned and through possible expansion of the portfolio alignment recommendations
In order to fulfill financial institutions’ commitments to align lending and investment portfolios with net zero, forward-looking portfolio management tools are needed to measure the transition progress of counterparties and portfolio companies. Portfolio alignment metrics address this need, and the 2021 PAT report established emerging best practices regarding the construction of these tools.

The 2021 PAT report identified three key categories of portfolio alignment metrics tools to support financial institutions’ efforts:

- **Binary target measurements** measure the alignment of a portfolio with a given climate outcome based on the percentage of investments or counterparties in a portfolio with net-zero, Paris-aligned targets.

- **Benchmark divergence models** assess portfolio alignment at an individual counterparty level by constructing normative benchmarks (emissions pathways that describe what must be done to achieve a given warming target) from forward-looking climate scenarios and comparing counterparty emissions against them.

- **Implied temperature rise (ITR) models** extend benchmark divergence models one step further, translating the assessment to a temperature score, which describes the most likely global warming outcome if the global economy were to exhibit the same level of ambition as the counterparty in question.

Except for binary target measurement, all portfolio alignment metrics follow three common methodological steps. The first is translating scenario-based carbon budgets (associated with a given climate goal) into normative benchmarks. The second is assessing counterparty-level transition performance and comparing those emissions to the benchmark. The third is translating performance into counterparty-level scores and aggregating them into a single portfolio-level score.

Across these three steps, there are nine Key Design Judgements which form the backbone of portfolio alignment measurement. These are detailed in Table 1.
## Table 1: Summary of Nine Key Design Judgements from the 2021 PAT report

<table>
<thead>
<tr>
<th>METHODOLOGICAL STEP</th>
<th>KEY DESIGN JUDGEMENT</th>
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<tbody>
<tr>
<td><strong>Step 1: Translating scenario-based carbon budgets into benchmarks</strong></td>
<td>Judgement 1: What type of benchmark should be built?</td>
</tr>
<tr>
<td></td>
<td>Judgement 2: How should benchmark scenarios be selected?</td>
</tr>
<tr>
<td></td>
<td>Judgement 3: Should absolute emissions, production capacity, or emissions intensity units be used?</td>
</tr>
<tr>
<td><strong>Step 2: Assessing counterparty-level alignment</strong></td>
<td>Judgement 4: What scope of emissions should be included?</td>
</tr>
<tr>
<td></td>
<td>Judgement 5: How should emissions baselines be quantified?</td>
</tr>
<tr>
<td></td>
<td>Judgement 6: How should forward-looking emissions be estimated?</td>
</tr>
<tr>
<td><strong>Step 3: Assessing portfolio-level alignment</strong></td>
<td>Judgement 7: How should alignment be measured?</td>
</tr>
<tr>
<td></td>
<td>Judgement 8: How should alignment be expressed as a metric?</td>
</tr>
<tr>
<td></td>
<td>Judgement 9: How should counterparty-level scores be aggregated?</td>
</tr>
</tbody>
</table>
Section 3: Portfolio alignment use cases, barriers to adoption, and proposed areas for 2022 enhancement work

Subsection 3.1 frames the 2022 portfolio alignment metric landscape and highlights possible use case examples from financial institutions. Subsection 3.2 presents the barriers to adoption of portfolio alignment metrics and subsection 3.3 outlines proposed areas for enhancement to address these barriers.

The areas outlined should be viewed as an initial list to be refined based on additional feedback.

3.1: POSSIBLE PORTFOLIO ALIGNMENT USE CASES IN THE FINANCIAL INDUSTRY

In 2022 Publication of Portfolio Alignment Measurement Report, we propose to supplement the technical guidance from the 2021 PAT report with comprehensive case studies from financial sector practitioners that address specific end user needs, provide more granular guidance on the use of portfolio alignment measurement tools, and identify the strengths and limitations of these tools. Finally, we propose to pinpoint and highlight disclosure examples on portfolio alignment from different financial institution types.

Numerous financial institution activities have been highlighted by our workstream members where portfolio alignment metrics could be used. These use cases have been summarized in Table 2 below. The selection of portfolio alignment metric depends on the use case’s need for granularity and the need for cross-comparability.

<table>
<thead>
<tr>
<th>USE CASE TYPE</th>
<th>END USER TYPE(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital allocation</td>
<td>Asset Manager/Bank/Asset Owner/Insurer</td>
</tr>
<tr>
<td>Disclosure/reporting</td>
<td></td>
</tr>
<tr>
<td>Engagement</td>
<td>Asset Manager/Bank/Asset Owner/Insurer</td>
</tr>
<tr>
<td>Risk management</td>
<td></td>
</tr>
<tr>
<td>Target setting</td>
<td>Asset Owner</td>
</tr>
<tr>
<td>Manager selection</td>
<td></td>
</tr>
<tr>
<td>Portfolio construction (in risk/return context)</td>
<td>Asset Manager/Asset Owner/Insurer</td>
</tr>
<tr>
<td>Institution-specific functions (e.g., product structuring)</td>
<td>Bank</td>
</tr>
<tr>
<td>Knowledge of tools for supervisory activity</td>
<td>Central banks &amp; governments</td>
</tr>
</tbody>
</table>
3.2: BARRIERS TO ADOPTION

Portfolio alignment tools are powerful and intuitive communication metrics, attractive to many stakeholders, including pension trustees and beneficiaries, policy makers, central bankers, and civil society organizations for their ability to help present complex work on progress against net-zero commitments.

Although progress has been made with regards to the adoption of portfolio alignment metrics, barriers still remain to presenting the range of use cases in Section 3.1. During the engagement, industry practitioners highlighted two core themes: methodological and implementation obstacles, both of which are outlined below.

3.2.1 Methodology-focused barriers

Uncertainty of underlying model assumptions (all Judgements)

As outlined in Section 2, there are varying levels of assumptions that underpin methodological approaches to the nine Key Design Judgements. Depending on the assumptions and design choices made, the signals from portfolio alignment metrics currently can deviate significantly. The resulting alignment performance score, especially when expressed as a temperature, may be misunderstood by users who are unaware of the underlying complexities of assumptions. Our engagement audience highlighted that there are a few specific areas within the Key Design Judgement framework which require greater examination to quantify and address the associated uncertainties. These include, but are not limited to, the choice of portfolio alignment metric expression, the choice of time horizon when using a cumulative approach to assessing alignment, and the choice of a scenario benchmark.

How should alignment be measured? (Judgement 1)

Measuring corporate alignment using a single-scenario benchmark approach — e.g., with a convergence-based, rate-of-reduction, or fair-share carbon budget approach — was identified through engagement as an additional area where refinement is required. The fair-share approach is the most scientifically robust and recommended in the 2021 PAT report; however, it involves various underlying assumptions that drive uncertainty when operationalized. This is a particular challenge when attempting to account for a corporate’s growth within the benchmark. Our engagement audience has noted that this trade-off between the robustness of portfolio alignment methodologies and the ease of computation and/or comprehension is a key barrier to adoption.

What is the appropriate scenario? (Judgement 2)

As of today, there is no defined scenario standard and comparability across scenarios remains a challenge. Many financial practitioners have raised their concern that scenarios used for portfolio alignment benchmarking lack sectoral and regional granularity. It is unclear how to select appropriate scenarios for specific portfolio alignment use cases. For example, higher levels of adoption could be driven if portfolio alignment metrics were applied on a narrower and higher-quality sectoral and regional scope. To drive transparency and ensure comparability in underlying scenario assumptions, participants suggested a unified scenario database should be developed.

The use of different emissions metric units (Judgement 3)

Practices at the time of writing point to a lack of methodological guidance for the appropriate emissions metric unit to select for portfolio alignment calculations, particularly for the oil and gas sector. Approaches typically leverage one, or a combination, of absolute emissions, physical emissions intensity, and/or economic intensity. Feedback highlighted that there is limited guidance on combining absolute emissions with physical intensities. While the use of absolute emissions reflects the remaining carbon budget, intensity benchmarks may be better suited for companies operating in homogenous sectors like cement and steel.
Lack of guidance on how to forecast issuer-level emissions (Judgement 6)
The 2021 PAT report provided an initial framework with high-level guidance for forecasting emissions. However, our workstream members expressed the need for more detailed guidance on emissions forecasting based on companies’ decarbonization targets. Projections solely based on the stated targets’ decarbonization pathways translate to lower portfolio alignment scores and can therefore incentivize good target-setting behaviour but may not drive emission reductions in the real economy. On the other hand, projections solely focusing on historical emissions or near-term capex planning may fail to recognize that the future policy and economic environment may look very different than what we see today. Last year’s PAT report suggested performing a credibility analysis of both short- and long-term corporate emission reduction targets. However, as of today, there is still a lack of guidance on how such a credibility analysis should be performed. As a result, institutions employ different methodological approaches, yielding different results on portfolio alignment metrics.

Additionally, when computing portfolio alignment over a longer time horizon, a portfolio alignment score for a company with short- and medium-term targets but no long-term targets is likely to translate into an inferior portfolio alignment score, compared to companies that have a longer-term net-zero target. Yet, short- and medium-term targets may better drive real-economy decarbonization and thus may warrant a better portfolio alignment score. Our engagement audience highlighted that this is an area requiring further examination and guidance.

What is correct time horizon for measuring alignment? (Judgement 7)
Global warming is a function of cumulative emissions. For this reason, one of the technical considerations of the 2021 PAT report was that portfolio alignment should be calculated on a cumulative emission basis. Participants highlighted that many financial market practitioners agree with this approach in principle. However, there is industry divergence with regards to the choice of time horizon. Calculating portfolio alignment over a short time horizon (e.g., less than five years) may not be sufficient to capture long-term economic transformations and instead focuses on incremental improvements. On the other hand, long-term alignment approaches may suffer from uncertainty with regards to forecasting company emissions. Engagement participants noted that there is insufficient guidance for how to consider these trade-offs and uncertainties in portfolio alignment metrics.

What is the appropriate metric for expressing alignment? (Judgement 8)
The choice of how alignment is expressed as a metric includes inherent trade-offs between the communicability of temperature metrics and the uncertainty of underlying methodological assumptions. For example, an implied temperature rise (ITR) metric may be easier to communicate and more easily understood by retail investors. However, the construction of an ITR involves higher degrees of uncertainty compared to other potential portfolio alignment metrics such as percent misalignment or binary measurements, and comparability between different ITR methods remains challenging.

The asset owner community has also pointed out the potential need to use multiple metrics to properly assess and communicate alignment. The appropriate alignment metric used may differ for a variety of reasons, e.g., resolution/granularity required. For these reasons, there is a need to investigate the usefulness of metrics other than ITR and identify appropriate alignment tools suitable for specific use cases.

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3.2.2 Implementation-focused barriers

**Shortcomings in required data (Judgement 4)**

The lack of corporate disclosure of emissions data and transition plans is a clear challenge for portfolio alignment modeling; this is a particular issue for Scope 3 emissions, with geographical skews also affecting coverage. For example, a recent MSCI study found that 69 percent of companies reporting to CDP did not disclose Scope 3 emissions. Given the lack of emissions reporting, estimation models with varying assumptions are required to understand companies’ and assets’ contributions to net zero. Combining reported data with estimation methodologies drives model uncertainty. Moreover, there is insufficient guidance on the impacts of different estimation methodologies (e.g., top-down vs. bottom-up). In addition, there is a clear need to incentivize corporate target setting in line with real-economy corporate strategy.

Engagement participants pointed to a lack of guidance on the materiality of Scope 3 emissions by sector and category, which can lead to divergent industry practices for handling Scope 3 emissions. Data issues are closely connected and feed into the barriers outlined in the methodology-focused barrier section.

**The impact of climate solutions financing is not reflected in portfolio alignment pathways**

Climate solution financing refers to technologies directly contributing to the elimination of real-economy greenhouse gas (GHG) emissions, and services supporting the expansion of these technologies, that financial institutions can support in order to enable the global transition to net zero. These solutions include scaling up zero-carbon alternatives to high-emitting activities—a prerequisite to phasing out high-emitting assets. Examples of climate solutions include energy efficiency technologies across all sectors, clean energy development, and natural carbon sinks through nature-based solutions and reforestation projects.

The impact of climate solutions financing is not currently reflected in most portfolio alignment measurement approaches. On the one hand, companies who develop climate solutions are enablers of the transition to a low-carbon economy. On the other hand, these companies may be operating carbon-intensive business models which translate to inferior portfolio alignment scores if the climate solutions are not factored into the portfolio alignment calculation methodology.

Consequently, investors in climate solution companies currently have little incentive to use portfolio alignment metrics. Financial sector practitioners have highlighted that there is a need for guidance on addressing these perverse incentives and incorporating the impact of climate solutions financing into portfolio alignment metrics.

**Metric providers are insufficiently transparent**

Engagement participants highlighted the current lack of transparency in the disclosure of methodologies used by portfolio alignment metric providers. More specifically, metric providers do not generally explain how they conform or diverge from the PAT report framework laid out in Table 1. Some end users stated that they find it difficult to compare portfolio alignment metric outputs from different providers and understand the different model assumptions made. In combination with the significant difference between metric providers’ alignment scores and the new and evolving nature of the work, trust in portfolio alignment results is challenging for some financial sector practitioners.

**Lack of guidance for implementing portfolio alignment metrics in practice**

Given the methodological uncertainties outlined

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above, sector practitioners highlighted a lack of guidance on the appropriate implementation and use of portfolio alignment metrics.

**3.3: PROPOSED ENHANCEMENTS FOR THE 2022 REPORT TO ADDRESS BARRIERS TO ADOPTION AND DRIVE GREATER CONVERGENCE**

To address the methodological barriers to adoption outlined in Section 3.2, engagement participants emphasized a clear need for methodological enhancements and more in-depth guidance on the implementation of the nine Key Design Judgements. In this section, we connect the barriers with an overview of proposed enhancement work for 2022.

Table 3 lists the proposed enhancement work in order of priority, based on feedback from engagement received to date. We welcome input on how the proposed enhancements could be performed.

### Table 3: Connecting barriers to proposed enhancement work

<table>
<thead>
<tr>
<th>JUDGEMENT(S)</th>
<th>BARRIER CATEGORY</th>
<th>BARRIER</th>
<th>CHALLENGE(S)</th>
<th>PROPOSED ENHANCEMENT WORK</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>Methodological and implementation</td>
<td>Uncertainty of underlying model assumptions</td>
<td>Often a lack of transparency on underlying model complexities, depending on metric provider disclosure.</td>
<td>• Metric providers should disclose their methodologies against the nine Key Design Judgements.</td>
</tr>
<tr>
<td>6</td>
<td>Methodological</td>
<td>Lack of guidance on how to forecast issuer-level emissions</td>
<td>How credible are issuer-level emission reduction targets? Methodologies typically leverage one or a weighted combination of transition plan targets, historical emissions, plans on low carbon capital expenditures (CapEx), and qualitative assessments based on third-party data.</td>
<td>• Explore how emissions could be forecast by combining multiple sources of backward and forward-looking data sources such as historical emissions, low carbon CapEx plans, and net-zero targets. • Collaborate with the GFANZ workstream on real-economy transition planning (1.3) to investigate a possible method for assessing the credibility of issuer-level transition plans and their integration into forecasting approaches. • Explore the above with the help of case studies and analytical testing work.</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>JUDGEMENT(S)</th>
<th>BARRIER CATEGORY</th>
<th>BARRIER</th>
<th>CHALLENGE(S)</th>
<th>PROPOSED ENHANCEMENT WORK</th>
</tr>
</thead>
</table>
| 4           | Implementation   | Shortcomings in required data | There is a lack of corporate emissions disclosure, in particular Scope 3 value-chain emissions. How material are Scope 3 emissions for specific sectors? | - Provide category-specific sector-by-sector guidance on the materiality of upstream and downstream Scope 3 emissions for specific sectors, for example with the help of case studies and the evaluation of different Scope 3 emissions estimation approaches.  
- With the help of case studies, showcase how different financial institution types account for climate solutions today, for example with supplemental climate metrics. In the banking sector, climate solution financing is often captured separately via sustainable financing targets which we plan to feature via an illustrative case study. |
| 8           | Methodological   | What are appropriate metrics for expressing alignment for specific use cases? | There are a variety of portfolio alignment metrics being used, for example implied temperature rise, percentage misalignment, binary alignment, and other approaches, and they are hard to compare. | - Categorize different approaches to expressing alignment, and how this links up to specific use cases. Showcase advantages and drawbacks with the help of case studies that link back to the use case identified in section 3.1.  
- Develop a quantitative case study which examines the results of different portfolio alignment metrics. |
| 3           | Methodological   | The use of different emissions units | What is the most suitable emissions unit to get intuitive issuer-level results? | - Develop guidance on appropriate emissions units to use per sector.  
- Explore how absolute emissions could be combined with physical intensities to get the most intuitive results, for example with the help of a quantitative case study. |
| 1           | Methodological   | How should alignment be measured? | The 2021 PAT report recommended the fair-share carbon budget approach for all sectors. However, how can corporate growth be reflected within such a benchmark approach, given the multitude of assumptions in construction? | - Develop practical guidance on measuring alignment with a fair-share benchmark.  
- Outline the limitations of the approach, and highlight potential approaches for addressing these challenges, for example with the help of quantitative case studies that emphasize the illustrative impact of different single-scenario benchmark decarbonization approaches. |
## Methodological

### What is the correct time horizon for measuring alignment?

Calculating portfolio alignment over a short time horizon (e.g., less than five years) may not be sufficient to capture long-term economic transformations and instead focuses on incremental improvements.

- Provide guidance on the implications of selecting different time horizons.
- Analyze the potential advantages and trade-offs for selecting different time horizons.
- Supplement guidance with a quantitative case study that examines the impact of different time horizons in cumulative-based approaches.

(Note: Enhancement work will be interlinked with guidance provided on emissions forecasting)

### What is the appropriate scenario?

How to select appropriate scenarios for specific portfolio alignment use cases is unclear.

- Showcase selected research results from the GFANZ Sectoral Pathways workstream (1.2) on the existing scenario landscape (e.g., NGFS, IEA) and sector-specific pathways (e.g., NetZero steel, Clean Skies for Tomorrow for aviation).
- Report key challenges to scenario harmonization, granularity and availability following engagement with key scenario providers.

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**On Key Design Judgement 5:** We found broad industry agreement regarding best practice around the quantification of GHGs. The PCAF framework has been highlighted for measuring financed emissions, per the 2021 PAT Report considerations.

**On Key Design Judgement 9:** There is general agreement with the 2021 PAT Report considerations on portfolio aggregation methodologies. As a result, these areas have not been flagged for prioritisation in 2022, and the workstream is not currently proposing any enhancements.

**Work proposed for 2023 workplan**

Items considered for the 2023 work plan include incorporate carbon credits into portfolio alignment methodology, supplemental metrics for portfolio decarbonization, and guidance for how portfolio alignment measurement can be performed for different asset classes and investment vehicles. The workstream also acknowledges the important topic of climate solution financing and while we plan to reference it during this year’s report, we propose providing more granular guidance in 2023. Members from the banking industry have highlighted the need for more guidance on the suitability of different emission attribution approaches and their impact on portfolio alignment measurement for future work plans. Moreover, the treatment of facilitated emissions in the banking sector has also been mentioned.

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Appendix 1

Background on GFANZ work program
The Glasgow Financial Alliance for Net Zero (GFANZ) is a global coalition of leading financial institutions in the UN’s Race to Zero that is committed to accelerating and mainstreaming the decarbonization of the world economy and reaching net-zero emissions by 2050. GFANZ brings together seven financial sector net-zero alliances, representing more than 500 members, into one global strategic alliance to address common challenges and elevate best practices across the sector. GFANZ core areas of work are practitioner-led and advised by leading technical civil society organizations.9

Figure 1: GFANZ 2022 work program10

<table>
<thead>
<tr>
<th>Financial Institution Net-zero Transition Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>To finance or enable climate solutions, the net-zero transition of firms, the managed phaseout of high-emitting assets, and firms already aligned to net-zero</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mobilizing Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accelerating capital allocation in support of the net-zero transition in Emerging Markets &amp; Developing Economies (EM&amp;DEs)</td>
</tr>
</tbody>
</table>

- Augment International Finance Architecture
- Scale Market-making Initiatives
- Drive Country-targeted Solutions

<table>
<thead>
<tr>
<th>Climate Transition-related Data (Open Data Platform)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhancing transparency to monitor climate actions and commitments, and arm financial institutions with the information they need to develop and execute on their transition plans</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Net-zero Public Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicating the wider reforms needed to align the financial system to net-zero while ensuring an orderly and just transition, and embedding GFANZ and relevant partner deliverables within financial and regulatory systems</td>
</tr>
</tbody>
</table>

Key: Each box represents a workstream. The arrow indicates one is a reference for or input into the other.

Building Blocks of the Net-zero Financial System

- External standard-setting and disclosure requirements (e.g., TCFD, ISSB, SEC, EFRAG)
- Science and industry-based pathways (e.g., IPCC, IEA, OECM, MPP)
- Nationally Determined Contributions (NDCs) and country climate plans
- Real economy corporate net-zero targets/implementation
- Net-zero measurement/accounting (e.g., PCAF, GHG protocol)
- Taxonomies and classification systems
- Carbon markets and related infrastructure (e.g., CCPs)
- Other climate-aligned policy and regulation

9 The alliances are: The Net Zero Asset Managers initiative, the Net-Zero Asset Owner Alliance, the Net-Zero Banking Alliance, the Net Zero Financial Service Providers Alliance, the Net-Zero Insurance Alliance, the Net Zero Investment Consultants Initiative, and the Paris Aligned Investment Initiative.

10 In this note, orderly is defined as: early, ambitious action to a net zero CO₂ emissions economy, following the definition provided by NGFS. Noting that disorderly is defined as: action that is late, disruptive, sudden and/or unanticipated. NGFS Climate Scenarios for central banks and supervisors, 2020.
The elements of the GFANZ work program under Financial Institution Net-zero Transition Plans are all connected and intended to collectively support financial institutions’ net-zero transition planning and implementation efforts. For the provision of finance to be aligned with net-zero goals, financial institutions need to understand and evaluate the transition strategies of their clients and portfolio companies.

GFANZ’s work on real-economy transition plans will support this by delineating the financial sector’s expectations for real-economy firms’ transition plans to ensure that they include specific, consistent information that financial institutions can use in decision-making.

Sectoral pathways help inform transition strategy development for both real-economy firms and financial institutions, providing information on the alignment of real-economy activities with net-zero objectives.

Portfolio alignment metrics contribute to methodologies for evaluating the alignment of financial portfolios with net-zero objectives.

One approach to net zero-aligned finance is financing or enabling the early retirement of high-emitting assets, informed by sectoral pathways. The GFANZ work on Managed Phaseout sets out preliminary thinking and a work plan to support the use of early retirement as part of net-zero transition planning for both financial institutions and real-economy firms.

This Concept Note was developed by the GFANZ Portfolio Alignment Measurement workstream, which sits within the organizational structure overview displayed above within the GFANZ 2022 work program.

The Portfolio Alignment Measurement workstream is targeting the following impacts:

- Increasing adoption: The workstream will promote adoption through addressing barriers to developing, implementing, and using portfolio alignment metrics.
- Driving convergence: The workstream will aim to drive convergence on best practice approaches to portfolio alignment methodologies, by shining light on trends and decision points in methodologies which are beginning to display commonalities.
- Enhancing portfolio alignment methodologies: The workstream will design enhancements to the PAT methodology by reflecting real-world lessons learned and through possible expansion of the portfolio alignment recommendations.

The workstream is led by David Blood (Generation IM) and is composed of 25 workstream members and advisors.

Workstream members are representatives from a range of institutions that are members of GFANZ and its sector-specific alliances. The workstream composition reflects diversity in terms of geography, representation of sector-specific net-zero alliances, different types of financial institutions, and institution size.

This workstream was preceded by the Portfolio Alignment Team (PAT) which was set up to respond to growing investor and lender interest in measuring portfolio alignment against the objectives of the Paris Agreement and to advance the adoption of consistent, robust, and transparent tools that enhance financial decision-making.
The Task Force on Climate-related Financial Disclosures (TCFD) commissioned the PAT to develop and publish a technical report in 2021 on emerging best practices in climate-related portfolio alignment measurement and to identify those areas where further research was needed to determine best practice.

Given the importance of further refining these tools so that financial practitioners and policymakers can better track financial institutions’ progress towards net zero, GFANZ established a dedicated workstream to build on the initial research and development.
Appendix 2

This graphic outlines details of the potential quantitative case studies that could be explored by this workstream, broken out by PAT Key Design Judgement. This features the range of options per Judgement that could be the focus of analytics and the sectors that analysis would be based in.

Figure 2: Quantitative Case Study Tree outlining potential design options to flex (preliminary)

<table>
<thead>
<tr>
<th>Key Design Judgement</th>
<th>Details</th>
<th>Design options to flex</th>
<th>Sectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Judgement 1: What type of benchmark should be built?</td>
<td>Test 1: Calculate individual corporates’ alignment using different single-scenario benchmark construction approaches</td>
<td>Option 1: Rate of reduction</td>
<td>Utilities, Oil and Gas, Steel, Automotive</td>
</tr>
<tr>
<td>Judgement 2: How should benchmark scenarios be selected?</td>
<td>Test 1: Calculate individual corporates’ alignment using different metric units</td>
<td>Option 1: Absolute emissions</td>
<td>Oil and Gas</td>
</tr>
<tr>
<td>Judgement 3: Should absolute emissions, production capacity, or emissions intensity units be used?</td>
<td>Test 1: Calculate individual corporates’ alignment using different Scope inclusion approaches</td>
<td>Option 1: Scope 1</td>
<td>Oil and Gas</td>
</tr>
<tr>
<td>Judgement 4: What scope of emissions should be included?</td>
<td>Test 1: Calculate individual corporates’ alignment using different emissions forecasting approaches</td>
<td>Option 2: Scope 1, 2</td>
<td>Oil and Gas, Automotive</td>
</tr>
<tr>
<td>Judgement 5: How should emissions baselines be quantified?</td>
<td>Test 1: Calculate individual corporates’ alignment using a combination of historical and forecasted emissions</td>
<td>Option 3: Using a combination of backward- and forward-looking info</td>
<td>Utilities, Oil and Gas, Steel, Automotive</td>
</tr>
<tr>
<td>Judgement 6: How should forward-looking emissions be estimated?</td>
<td>Test 1: Calculate individual corporates’ alignment using different qualitative assessment approaches</td>
<td>TBD based on feedback from WS members</td>
<td>Utilities, Oil and Gas, Steel, Automotive</td>
</tr>
<tr>
<td>Judgement 7: How should alignment be measured?</td>
<td>Test 1: Calculate individual corporates’ alignment using different time horizons</td>
<td>Option 1: Using 2030</td>
<td>Utilities, Oil and Gas, Steel, Automotive</td>
</tr>
<tr>
<td>Judgement 8: How should alignment be expressed as a metric?</td>
<td>Test 1: Calculate individual corporates’ alignment using different metrics</td>
<td>Option 1: ITR using TCRE multiplier</td>
<td>Utilities, Oil and Gas, Steel, Automotive</td>
</tr>
<tr>
<td>Judgement 9: How should counterparty-level scores be aggregated?</td>
<td>TBD based on data availability</td>
<td>Option 2: ITR using multiple benchmark interpolation</td>
<td></td>
</tr>
</tbody>
</table>

- Prioritized for quantitative case studies
- Not currently prioritized for quantitative case studies
### Appendix 3

#### Table 4: Summary of GFANZ Portfolio Alignment Measurement workstream responses to the prioritization poll

<table>
<thead>
<tr>
<th>KEY DESIGN JUDGEMENT</th>
<th>PRIORITIZATION OF TOPIC BASED ON WORKSTREAM MEMBER INPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Judgement 1: What type of benchmark should be built?</td>
<td></td>
</tr>
<tr>
<td>Judgement 2: How should benchmark scenarios be selected?</td>
<td></td>
</tr>
<tr>
<td>Judgement 3: Should you use absolute emissions or intensity?</td>
<td></td>
</tr>
<tr>
<td>Judgement 4: What scope of emissions should be included?</td>
<td></td>
</tr>
<tr>
<td>Judgement 5: How should emissions baselines be quantified?</td>
<td></td>
</tr>
<tr>
<td>Judgement 6: How should forward-looking emissions be estimated?</td>
<td></td>
</tr>
<tr>
<td>Judgement 7: How should alignment be measured?</td>
<td></td>
</tr>
<tr>
<td>Judgement 8: How should alignment be expressed as a metric?</td>
<td></td>
</tr>
<tr>
<td>Judgement 9: How do you aggregate counterparty-level metrics into a portfolio-level score?</td>
<td></td>
</tr>
</tbody>
</table>

- Highest priority
- Medium priority
- Lower priority