



# Addressing the Challenges of Financed Emissions

October 2023  
Japan Public and Private Working Group on  
Financed Emissions to Promote Transition Finance

*We welcome the report issued by the Japan Public and Private Working Group on Financed Emissions to Promote Transition Finance, which summarizes the challenges and potential effective approaches on this important issue. Japan has shown strong leadership in promoting transition finance and we look forward to further collaboration with the working group to mainstream transition finance in Japan, Asia and other regions.*

*~Glasgow Financial Alliance for Net Zero (Mark Carney, Co-Chair of Glasgow Financial Alliance for Net Zero)*

## 1. The Role of Financial Institutions and Disclosure in Achieving Carbon Neutrality

Accelerating global carbon neutrality requires scaling up of finance towards transition activities of hard-to-abate sectors (transition finance<sup>1</sup>), especially where options available today to decarbonize are technologically and economically limited, along with financing towards existing green sectors such as renewable energy. The transition of developing economies, especially those in Asia, is of particular importance. These regions with great significance in accelerating global decarbonization require various efforts tailored to each country's unique circumstances for their sustainable decarbonization and energy transition. The importance of transition finance has been internationally recognized, as seen in its mention in the G7 Hiroshima Summit's leaders' communiqué<sup>2</sup>.

Substantial funding is required<sup>3</sup> for efforts towards decarbonization, and proactive financing from private financial institutions is needed in conjunction with public funds. Transition towards a decarbonized society is an unprecedented investment opportunity, and transition finance provides such opportunities to financial institutions. Financial institutions have a critical role to play in accelerating decarbonization through transition finance and active engagement between financial institutions and fundraisers.

Recently, there has been growing expectation for financial institutions that play a pivotal role in decarbonization efforts to calculate and disclose "financed emissions"; borrowers' and investees' emissions attributed to these institutions. Calculating financed emissions allows for easy comparison and evaluation of the climate-related risks of a financial institution's investment and lending, and its efforts towards real-economy decarbonization. In addition, they will allow the disclosing entity's progress against global targets and their impacts. However, it is important to note that financed emissions are backward-looking metrics, based on emissions up to a certain point in time, and are not forward-looking metrics incorporating future emission reduction trends. Relying solely on current financed emissions figures may pose challenges in accurately evaluating the strategies and actions of financial institutions and companies for future emissions reduction. While financial institutions should demonstrate their mid- and long-term decarbonization and emissions reduction plans along with their effectiveness to stakeholders, focusing only on the current financed emissions and their temporary increase may hinder financing towards transition efforts that facilitate future

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<sup>1</sup> This paper does not intend to define transition finance, but rather aims to highlight the challenges in measuring and evaluating financial institutions' efforts for decarbonization and proposes some potential solutions. Acknowledging that GHG emissions reduction trajectories vary among sectors and regions and that the definition of transition finance is still under discussion globally, this paper gives transition finance a temporal definition and does not intend to exclude the projects not exactly falling into this definition from transition finance.

<sup>2</sup> "[G7 Hiroshima Summit Leaders' Communiqué](#)" (May 2023)

<sup>3</sup> According to Asia Investors Group on Climate Change (AIGCC), it is estimated that Asia will require investments in the range of USD 26 trillion to 37 trillion by 2050 to achieve decarbonization. Additionally, Japan aims for public and private investments of JPY 150 trillion by 2030 across 22 sectors, including hydrogen, digital technology, and circular economy.

real-economy decarbonization. Such issues of financed emissions are addressed in Appendix 1 for reference.

This paper outlines specific approaches for financial institutions to comprehensively disclose their contributions to decarbonization. Through these measures, financial institutions will be able to effectively demonstrate their quantitative and qualitative capabilities for executing mid- to long-term transitions, thereby avoiding excessive concerns about short-term fluctuations in financed emissions. This enables financial institutions to fulfill their accountability to stakeholders while providing more proactive financing for decarbonization efforts, including those of the hard-to-abate sectors. Although transition finance more commonly takes the form of bank lending or bond investment in the primary market, for the purpose of clarity, this paper organizes the approaches for comprehensive disclosure of decarbonization efforts through debt finance<sup>4</sup>. It should be noted that robust corporate disclosures should be pursued concurrently. It is expected that financial institutions committed to financing with scientific-based transition strategies will utilize these approaches to effectively disclose their future emissions reduction prospects to stakeholders, enabling the adequate evaluation of financing towards innovation and transition efforts by hard-to-abate sectors.

## **2. Effective Approaches for Addressing the Challenges of Financed Emissions**

This section categorizes effective approaches for addressing challenges regarding financed emissions into two main categories, as depicted in the diagram below:

- (1) Approaches on Calculation and Disclosure of Financed Emissions
- (2) Use of Multiple Metrics

The second category is further divided into two sub-categories: “Efforts on Real-Economy Transition” and “Execution Capability for Decarbonization-Related Measures”.



Underlying principles, key considerations, and relevant insights have been organized for each category<sup>5</sup>. A summary of the proposed approaches can be found in Appendix 2.

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<sup>4</sup> This paper primarily organizes methods from the perspective of debt finance. Since equity holds voting share and wields significant influence over corporate policies, balance in financed emissions between equity and debt are for future discussion.

<sup>5</sup> The [“Financial Institution Net-zero Transition Plans”](#) (November 2022) published by Glasgow Financial Alliance for Net Zero (GFANZ), classifies metrics and targets related to financial institutions' efforts towards a decarbonized society into three categories: Portfolio emissions, Real-economy transition, and Plan execution. The categories of this paper refer to these classifications.

<Categorization of the approaches>

<p style="text-align: center;">2-1</p>  <p style="text-align: center;">Approaches on Calculation and Disclosure of Financed Emissions</p>	<p style="text-align: center;">2-2</p>  <p style="text-align: center;">Use of Multiple Metrics</p>	
<p style="text-align: center;">Disclosure of financed emissions related to transition finance &amp; Calculation and Disclosure of emissions limited to transition assets</p>	<p style="text-align: center;">Efforts on Real- economy Transition</p>	<p style="text-align: center;">Execution Capability for Decarbonization-related Measures</p>

Note that proposed innovative disclosure approaches stand on the premise of each financial institution’s policy and definition of transition finance, which should be considered when comparing and monitoring their disclosure. Although transition finance can be referred to as financing hard-to-abate sectors where options available today to decarbonize are technologically and economically limited, the definition of transition finance is under development, and therefore financial institutions must clearly define their criteria and policies for what they consider "transition finance" by disclosing the guidance and approaches<sup>6</sup> referenced.

The approaches presented in this paper draw from discussions by private initiatives such as the PCAF Japan coalition, GFANZ, and the Net-Zero Banking Alliance (NZBA). Recognizing that metrics to evaluate financial institutions' efforts towards decarbonization are in the midst of discussion, suitable methodologies may vary depending on the nature and policies of financial institutions. It is expected that future deliberations on the calculation and disclosure of financed emissions will continue to progress jointly between the public and private sectors, drawing on the methods presented in this paper as a reference.

**2-1. Approaches on financed emissions calculation and disclosure**

The development of calculation and disclosure approaches acknowledging the limitations of financed emissions are essential in creating an environment where financial institutions’ decarbonization efforts are assessed appropriately.

One approach includes the use of carbon intensities. On top of disclosing absolute financed

<sup>6</sup> International Capital Market Association's "[Climate Transition Finance Handbook](#)"(June 2023), Japan's "[Basic Guidelines on Climate Transition Finance](#)"(May 2021), as well as the concepts of eligible transition plans organized by GFANZ, UK Transition Plan Taskforce (TPT), OECD, Climate Bonds Initiative, along with the taxonomies and technology roadmaps established by various countries, targets criteria set by Science Based Targets Initiative (SBTi), reports such as IPCC AR6 and others all serve as valuable sources of information and guidance in the realm of climate transition finance.

emissions, financial institutions may disclose carbon intensity, such as physical or economic intensity, and weighted average carbon intensity (WACI). This approach is addressed by Task Force on Climate-related Financial Disclosures (TCFD)<sup>7</sup> and other initiatives. Details on carbon intensity can be found in Appendix 3. Other approaches include calculation and disclosure of transition finance associated with financed emissions.

➤ Disclosure of financed emissions related to transition finance

By disclosing the total financed emission and the breakdown of financed emissions related to transition finance, financial institutions can communicate their commitment to stakeholders regarding transition finance more clearly. For instance, even if an increase in transition finance leads to an overall increase in financed emissions within the portfolio, disclosing each portion attributed to transition finance can explain that the increase in financed emissions is due to investments in hard-to-abate sectors and other sectors aimed at supporting decarbonization in the real-economy.

This approach aligns with the Rocky Mountain Institute's Managed Phaseout (MPO) guidance released in January 2023<sup>8</sup>, which suggests that financed emissions associated with MPO should be disclosed separately.

Example	Amount invested (billion yen)		FE (tCO2)
Loan	200	100%	30
Transition loan	50	25%	10
Bond	100	100%	40
Transition bond	20	20%	5

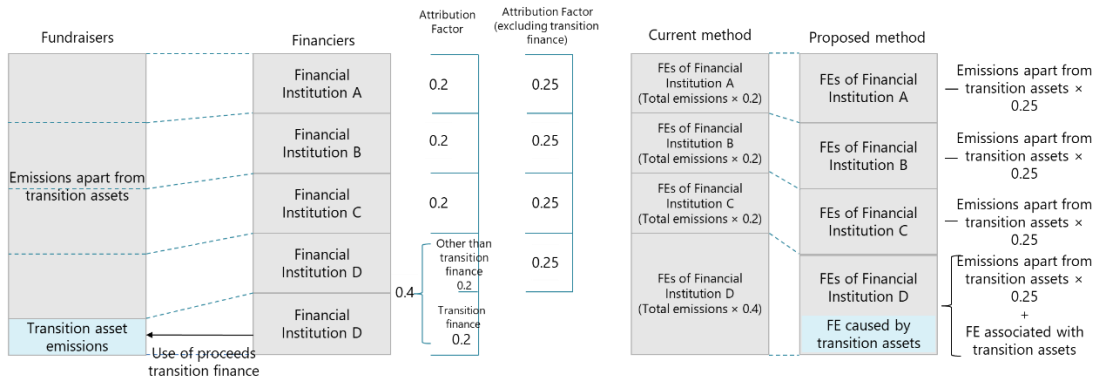
Additionally, as a more refined approach, it is possible to calculate and disclose financed emissions limited to the emissions associated with the use of proceeds projects.

• Calculation and disclosure of financed emissions associated with projects with the use of proceeds projects

Contributions of financial institutions to decarbonization investments through transition finance can be portrayed in detail by separating the emissions into emissions attributed to transition assets (financed through transition finance) and other emissions of the entity. This approach is discussed in detail in Appendix 4 through a case study.

<sup>7</sup> TCFD "[Implementing the Recommendations on the Task Force on Climate-related Financial Disclosure](#)" (July 2021)

<sup>8</sup> MPO is one of the four key financing strategies outlined in the guidance for financial institutions on transition finance, as established by GFANZ. In response to GFANZ's request, the Rocky Mountain Institute published practical guidance on MPO, titled "[Managed Coal Phaseout: Metrics and Targets for Financial Institutions](#)" in January 2023.



**【Examples of data required】**

- ✓ Total of funds allocated for transition finance, total funds allocated, GHG emissions of fundraisers (Scope 1 and 2 emissions; Scope 3 emissions if reduction efforts are applied to Scope 3 emissions).

**【Key considerations】**

- ✓ To avoid double-counting, it is essential to calculate the emissions associated with transition finance (loan/bond investment amount, project value and project emissions) and total amount not associated with transition finance separately. This transition requires both the fundraiser and the financial institution to maintain separate records for each transaction of transition finance. Calculation methods must be unified among financial institutions as calculations for transition-associated emissions affects financial institutions that do not take part in transition finance.
- ✓ Adequate disclosure by the fundraiser, including data on individual projects, is a prerequisite for this approach.

**2-2. Use of Multiple Metrics**

In addition to calculation and disclosure approaches, the use of multiple metrics is recognized as a method to represent a financial institution’s efforts towards decarbonization. While financed emissions serve as an excellent indicator for comparing a financial institution’s progress towards net-zero goals and time-series comparison/analysis, relying solely on snapshot financed emissions data may not effectively evaluate various efforts carried out through mid-term investment. Therefore, to ensure an adequate evaluation of the financial institution’s efforts, complementing financed emissions with other metrics is essential.

Such metrics include those related to (A) Efforts on Real-Economy Transition and (B) Execution Capability for Decarbonization-related Measures, which allow for financial institutions to adequately paint the whole picture of their decarbonization efforts, when used along with the approaches related to the calculation and disclosure of financed emissions as discussed in Section 2-1.

Various metrics are outlined in this section with reference to discussions in GFANZ, the World Business Council For Sustainable Development (WBCSD), the NZBA, SBTi and others. Furthermore, GFANZ issued a consultative document "Defining Transition Finance and Considerations for Decarbonization Contribution Methodologies" in September 2023<sup>9</sup>, reflecting discussions on a new approach to quantifying the potential of decarbonization through transition finance, noting that focusing solely on financed emissions will not be sufficient for the decarbonization of the real-economy. Additionally, NZBA has begun discussion on standardizing methodologies for calculating decarbonization contribution (output metrics) associated with the amount or number of transition finance (input metrics) intends to publish a guidance for banks<sup>10</sup>.

(A) Efforts on Real-Economy Transition:

Regarding indicators related to initiatives that promote the decarbonization of the real-economy, specific metrics can be considered, as outlined in items 1) to 6). These metrics encompass the following:

1): Represents the contribution (positive impact) of the fundraiser's products and services to the decarbonization of the real-economy.

2) to 6): Represents the contributions of fundraisers decarbonization effort itself.

1 ) Avoided emissions (by specific products and/or services)

**【Overview】**

- An indicator that allows for the assessment of fundraisers contribution to climate change mitigation by reducing other entities' emissions through the utilization of the fundraisers' decarbonization solution and expresses both the fundraiser's increased business potential and contribution to the decarbonization of society. Its significance is gaining momentum, leading to its acknowledgement in the G7 Climate, Energy and Environment Ministers Communiqué, where they noted" (t)here is also value in acknowledging (...) avoided emissions". Other publications related to

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<sup>9</sup> GFANZ "[Defining Transition Finance and Considerations for Decarbonization Contribution Methodologies](#)" (open consultation from September 2023)

<sup>10</sup> NZBA is working to develop complementary financed emissions KPIs to encourage transition finance, building on four key GFANZ financing strategies. With the aim of building an enabling environment where banks can actively provide transition finance in form of new money to their clients, NZBA focuses on the amount and/or number of transition finance provided over a certain period (input KPI) and expected emissions reduction from the transition finance provides (output KPI), complementing the emissions figures associated with the loan & investment asset at point in time. While these KPIs are expected to be implemented by NZBA member banks on a voluntary basis, NZBA intends to provide comparability between information disclosed by banks through providing a principle-based standardized calculation methodology. NZBA shares the same awareness of issues on financed emissions metrics as this sub-working group and encourages NZBA member banks to calculate and disclose these KPIs to complement financed emission metrics.



avoided emissions include a paper released in November 2018<sup>11</sup> by The Japan Business Federation (Keidanren) on the definition and importance of avoided emissions, and a recent issuance by WBCSD in March 2023 providing guidance for both upstream and downstream avoided emissions.

- Utilization by Financial Institutions: One way for financial institutions to utilize this indicator is to disclose the avoided emissions of fundraisers' products and/or services as part of the financial institution's avoided emissions. The calculation and disclosure methods on how to attribute fundraisers' avoided emissions to financial institutions are an area for future discussion. While not explicitly mentioned by WBCSD, it is conceivable to use the PCAF concept and allocate avoided emissions based on attribution factors. PCAF provides a method for calculating avoided emissions for renewable energy projects, demonstrating its relevance as a meaningful indicator for calculating contributions to decarbonization.
- When used, this indicator should be disclosed separately and not used to offset financed emissions.

## 2) Absolute or proportional amount of portfolio aligned with net-zero targets or Paris Agreement

### 【Overview】

- Indicates the financial institution's portfolio's degree of alignment towards the transition to a decarbonized society at the point of calculation/disclosure. Financial institutions may select criteria to assess alignment with their policies.
- For example, disclosing the proportion or number of companies or portfolio allocation of companies for which third parties confirmed alignment with specific pathways may be disclosed to express the commitment of the financial institution's support for transition. Other examples may include:
  - Proportion or number of companies with credible transition strategies that have been assessed by third parties.
  - Absolute or proportional amount of portfolio companies that have an allocation of transition-related CapEx, OpEx, R&D budgets, etc.
  - Proportion or number of companies with science-based net-zero targets.

## 3) Temperature ratings

### 【Overview】

- Converts corporate emission reduction targets (Scope 1, 2, and 3) into temperature scores at a target, company, and portfolio level, between 1.5°C and 5°C. This allows assessment of the degree of alignment of investments, commitments, and reduction

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<sup>11</sup> The Japan Business Federation (Keidanren) "[Avoided emissions through global value chain](#)" (only in Japanese) (November 2018)

targets of portfolio companies, with temperature objectives.

- Developed by CDP and WWF, this indicator is referenced in SBTi.
- 4) Amount or proportion of financed entities with credible transition strategies or related projects

**【Overview】**

- Focuses on supporting companies promoting the transition and decarbonization of society by replacing high-emission products and services with low-emission alternatives. The increase in the total amount or proportion of finance demonstrates the financial institution’s contribution to decarbonization.
- For example, this includes disclosing the breakdown of transition finance within the total amount of investments. This allows financial institutions to effectively communicate the context for temporary increases in financed emissions, in which the increase in financed emissions is due to investments in hard-to-abate sectors and similar sectors to support real-economy decarbonization.
- Unlike the disclosure of financed emissions associated with transition finance as shown in 2.1, this indicator focuses solely on disclosing the breakdown of the amount of investment without tying financed emissions directly to transition finance, making it easier to disclose.

example	Amount invested (billion yen)		FE (tCO2)
Loan	200	100%	30
Transition loan	50	25%	
Bond	100	100%	40
Transition bond	20	20%	

- 5) Future reduction effects through transition finance (limited to use-of-proceeds instruments)

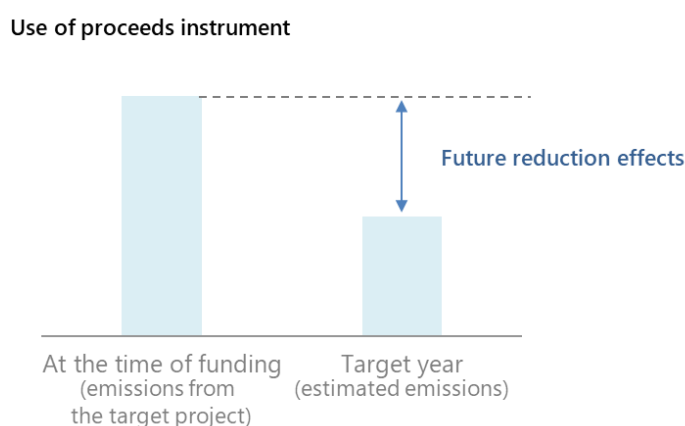
**【Overview】**

- Indicates the contribution of transition finance to decarbonization by calculating and disclosing the emission reductions attributable to transition finance out of the total GHG reductions expected from a company in the future and represents the future trajectory of financed emissions, making it distinct from avoided emissions.
- By indicating the difference between future and current GHG emissions from transition finance projects separately from financed emissions, financial institutions can explain to stakeholders that the increase is temporary and that the use-of-proceeds project is aligned with decarbonization targets, thus the increase due to transition finance will eventually decrease in the mid-to-long term along with the acceleration of real-economy decarbonization.

- When using this indicator, it is essential to consider the calculation methods for future reduction effects: how to convert them to present value, and how to address situations where actual emissions reductions do not progress as expected. Monitoring and disclosing reduction achievements and assessing whether emissions are steadily decreasing in line with goals are crucial for ensuring the reliability of this indicator.
- Note that calculating future reduction effects requires consideration of the degree of contribution that transition finance has to achieving decarbonization targets. Financed emissions should still be calculated with future reduction efforts, given that they are a snapshot of the reduction trajectory.

**【Examples of data required】**

- ✓ Current GHG emissions of the projects, reduction targets, number of years until target achievement, progress rates, and other relevant information.



- 6) Physical indicators (e.g. number of financed projects related to certain low/zero carbon related products and services)

**【Overview】**

- Physical metrics may include the number of decarbonization-related projects financed by financial institutions. For instance, it may involve the number of investments in Sustainable Aviation Fuel (SAF) projects, the number of financed managed phaseout projects, or the generation capacity of renewable energy investment projects.

- 7) Decarbonization Contribution (GFANZ is currently developing guidelines. Please refer to the footnote 9 for the detail.)

**【Overview】**

- Best Practice approaches to estimate the Expected Emissions Reductions (EER) of financial institutions' transition finance activities with the aim of helping financial

institutions measure the impact of transition finance activities (mainly for assets but may include loans).

- The work aims to incentivize financial institutions to scale transition finance by moving beyond the conventional evaluation based solely on financed emissions, instead associating current investments with expected emissions savings in the future.
- The newly coined term “EER” is applicable across GFANZ key financing strategies<sup>12</sup> for fundraisers or issuers to categorize institution's asset portfolio (such as equity or debt). Then, it considers the future GHG reduction expected from the entire asset.
- Rather than developing a new indicator, the work led by GFANZ considers existing approaches that can be used to quantify EER (i.e., Avoided Emissions and Emissions Reduction Potential) and aims to develop harmonizing principles to their transparent use along with illustrative case studies.
- The distinctive feature of this approach is that it does not rely on historical data for financed emissions, but instead focuses on quantifying EER if the assets are held over time. It is intended to be a supplementary metric to be calculated and disclosed alongside other relevant indicators.

**【Examples of data required】**

- Information to assess the alignment of fundraisers or projects to a 1.5°C scenario (expected GHG emissions reduction trajectory)
- Information used to calculate the attribution factor for financed emissions

**【Further consideration】**

- This approach will be developed further due for publication at COP28 and thus may require further consideration, including the methods to categorize assets (fundraisers or financed projects) into GFANZ's four groups, the attribution factors for each category, and the treatment of assets that do not fall into the four categories. However, quantifying the impact of transition finance by forward-looking metrics in a standardized way may help financial institutions provide greater transparency about their net-zero progress to investors and stakeholders. Discussions regarding the finalization of this approach must be closely followed.

**(B) Execution Capability for Decarbonization-related Measures:**

These indicators represent the progress and level of execution of a financial institution's decarbonization plan. Possible examples include those related to execution on its strategy, engagement, and governance, all of which are explained below. Such indicators

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<sup>12</sup> The GFANZ guidance “[Financial Institution Net-zero Transition Plans](#)” (November 2022) has identified four voluntary key financing strategies through which financial institutions can support and enable an inclusive whole-economy transition: Climate Solutions, Aligned, Aligning, Managed Phaseout. GFANZ definition of transition finance is built upon these four strategies.

can provide insight on to what extent a financial institution has executed its efforts towards decarbonization. Details are outlined in Appendix 5.

<Efforts towards decarbonization aside from financing activities>

- 1) Financial institutions by key policies
- 2) Amount, number, or proportion of products and services that are aligned to the net-zero transition plan
- 3) Amount, number, or proportion, of clients or portfolio companies with climate-related engagement activities

<Governance and organizational structure related to decarbonization>

- 4) Number or proportion of employees and board members involved in decision-making and efforts on climate-related affairs

Comprehensive disclosure of various efforts by financial institutions requires the use of multiple indicators including forward-looking metrics. Proposed indicators should not be used solely, and it is important that they are disclosed alongside financed emissions.

While the use of multiple indicators complements the explanation of a financial institution's various efforts, the reliability of these indicators must be considered. For example, the concept of avoided emissions is still under development and details on baseline settings and sector-specific calculations are yet to be standardized. Similarly, assessment for indicators such as the amount or proportion of companies aligned with the 1.5°C target inevitably involves qualitative considerations, which means decisions on whether each company is aligned or not depend on the financial institution (with the help of third-party evaluation). Therefore, it is crucial for financial institutions to clarify their methods on how to assess their alignment, based on their policies, taking references from existing frameworks, while continuing discussions in various private initiatives to refine these methods.

### **3. Conclusion**

This paper has been developed through discussions under the Public and Private Working Group on Financed Emissions to Promote Transition Finance. The importance of explaining the trajectory of financed emissions related to emissions reduction in the real economy was recognized at the 2023 G7 Finance Ministers and Central Bank Governors' Meeting, and further discussions with the public and private sectors will be highly expected.

Discussions related to financed emissions and financial institutions' efforts to achieve carbon neutrality have been carried out through various private initiatives, including GFANZ, PCAF, and SBTi. The challenges associated with financed emissions vary between new finance and assessing existing portfolio alignment, as well as between asset owners, asset managers, insurance companies or banks, or between the policies of each financial institution on

decarbonization.

The calculation methods and key considerations for financed emissions require further discussion to address these challenges, and are expected to be led by PCAF and/or other private initiatives related to financed emissions<sup>13</sup>. For the use of multiple indicators other than financed emissions, specific options must be explored in various private initiatives to ensure the appropriate evaluation of financial institutions' contributions to new decarbonization investments.

As for the Japan Public and Private Working Group on Financed Emissions to Promote Transition Finance, we hope that the issuance of two papers: one issued in February 2023 addressing the issues of finance emissions<sup>14</sup>, and this paper with proposed approaches, will be referred by financial institutions, creating an environment for financial institutions where their efforts toward decarbonization will be appropriately evaluated, thus leading to the decarbonization of the whole economy including the hard-to-abate sectors.

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<sup>13</sup> For instance, as assessment of an existing portfolio's financed emissions is one of the issues for asset owners. Further discussions in Net-Zero Asset Owner Alliance (NZAOA) will be important.

<sup>14</sup> Financial Services Agency, Ministry of Economy, Trade and Industry and Ministry of the Environment simultaneous release "[Creating an Enabling Environment to Scale-up Transition Financing to Accelerate Decarbonization of Hard-to-Abate Sectors](#)" (February 2023)



**AIM |** Communication to the public and private sectors regarding the FE

- Identify the issues of FE initiated from its characteristics.
- To create an enabling environment for financial institutions to finance for decarbonization by widely sharing the knowledge to government tracks (G7/G20) and private sector initiatives.



**Background**

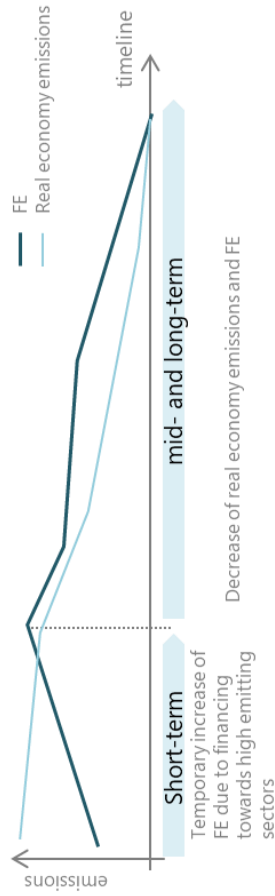
- Achievement of carbon neutrality is a worldwide issue and in Asia, financing for the transition of hard-to-abate sectors (transition finance) is crucial.
- Acknowledging the importance of financial institutions on decarbonization, GFANZ and other alliances have requested net zero target setting including emissions related to financial services and activities (FE).
- However, financing for real economy decarbonization may temporarily increase FE.
- Since FE alone is not suitable for evaluating corporations' strategies or actions towards decarbonization, emphasis on short-term FE trends may disincentivize some financial institutions due to concerns on the temporary increase of FE.



**Basic Concepts**

Transition Finance contributes to both mid- and long-term decarbonization of real economy and FE

- ✓ Focusing only on the current financed emission may disincentivize some financial institutions from engaging in financing due to the concerns on temporary increase hindering their mid-term target and may lead to reluctance in financing transition activities which will merit decarbonization in the mid- and long-term.



Importance of comprehensive explanation on efforts of real economy decarbonization

- ✓ Real economy decarbonization requires capital mobilization for transition and innovation.
- ✓ To appropriately evaluate such efforts by financial institutions, complementary metric(s) for financed emissions and disclosure framework is required along with the current methodologies.

### Section 2.1 Approaches of Calculation and Disclosure of FE

#### Calculation and disclosure of transition finance related FE

Disclosing the total amount of transition finance as well as FE related to transition along with absolute emissions. Calculating FE by using emissions limited to use of proceeds projects are can also be considered as a more refined method.



#### Calculation and disclosure of carbon intensity and WACI

Allows for differences in growth, investment or productions sizes and enhances comparability



### Section 2.2 Use of Multiple Metrics

- ✓ Proposes the use of metric and targets related to financial institutions effort on real-economy decarbonization and plan execution to enhance the accountability
- ✓ Metrics include avoided emission, number of companies aligned to net-zero etc.





## Section 2.2 Use of Multiple Metrics

	Examples of metrics	explanation
<p><b>Efforts on real-economy transition</b></p>	<p>Avoided emissions (by specific products and/or services)</p>	<ul style="list-style-type: none"> <li>Financial institutions may disclose fundraisers avoided emissions (impact created by the use of specific products or services) as financial institutions' avoided emissions.</li> </ul>
<p>Metrics related to efforts for real-economy transition.</p>	<p>Amount, absolute or proportion of portfolio aligned with net-zero targets or Paris Agreement</p>	<ul style="list-style-type: none"> <li>Indicates the financial institution portfolio's degree of at the point of calculation/disclosure. Financial institutions may select criteria to assess alignment according to their policy.</li> </ul>
<p>Includes avoided emissions to transition based indicators.</p>	<p>Temperature ratings</p>	<ul style="list-style-type: none"> <li>Allows assessment for the degree of alignment with temperature objectives of investments, commitments, and reduction targets of portfolio companies.</li> </ul>
	<p>Amount or proportion of finance companies with transition strategies or related projects</p>	<ul style="list-style-type: none"> <li>Focuses on supporting companies promoting the transition and decarbonization of society by replacing high-emission products and services with low-emission alternatives.</li> </ul>
	<p>Future reduction effects through transition finance (limited to use of proceeds instruments)</p>	<ul style="list-style-type: none"> <li>Indicates the contribution of transition finance to decarbonization by calculating and disclosing the emission reductions attributable to transition finance out of the total GHG reductions expected from a company in the future.</li> </ul>
	<p>Physical indicators</p>	<ul style="list-style-type: none"> <li>Indicates the contribution towards specific projects. Examples of indicators include, the number of financed managed phaseout projects, or the generation capacity of renewable energy investment projects.</li> </ul>
	<p>Decarbonization contribution (GFANZ is currently developing guidelines)</p>	<ul style="list-style-type: none"> <li>Best practice approach to estimate the Expected Emissions Reductions (EER) of financial institutions' transition finance activities. It is currently (October 2023) under development, thus it is needed to closely follow the discussions toward the finalization of this approach.</li> </ul>
<p><b>Execution capability for decarbonization-related measures</b></p>	<p>amount, number, or proportion of portfolio covered by key policies</p>	<ul style="list-style-type: none"> <li>Key policies are expected to include the following <ul style="list-style-type: none"> <li>- Fossil Fuel Policy</li> <li>- Deforestation Policy</li> </ul> </li> </ul>
<p>Metrics related to the degree of progress of financial institution's decarbonization plan. Includes plan execution, governance and engagement.</p>	<p>Amount, number, or proportion of products and services that are aligned to the net-zero transition plan</p>	<ul style="list-style-type: none"> <li>One of the indicators represent the extent of financial institution's net zero transition plan execution.</li> </ul>
	<p>Amount, number, or proportion, of clients or portfolio companies with climate-related engagement activities</p>	<ul style="list-style-type: none"> <li>Possible indicators include the number or proportion companies and/or the amount of finance/investment to such engaged companies (includes academia &amp; government authorities)</li> </ul>
	<p>number or proportion of employees and board members involved in decision-making and efforts on climate related affairs</p>	<ul style="list-style-type: none"> <li>Possible indicators include: <ul style="list-style-type: none"> <li>-Employees and management who have completed climate-related training</li> <li>-Specialists on climate change and other related issues</li> <li>-Management and board members with remuneration linked to the progress against and achievements of climate-related targets</li> <li>-Amount of human capital investment to enhance capacities</li> </ul> </li> </ul>

### Appendix 3 Carbon Intensity

Disclosing physical or economic carbon intensity along with absolute financed emissions allows financial institutions to disclose their contribution in a neutral way; without being affected by the fluctuation of the demand for products and services that contribute to real-economy decarbonization and/or an increase in decarbonization investment amount.

Physical carbon intensity is an indicator to represent emission efficiency per physical activity, calculated by dividing portfolio companies' emissions by physical metrics such as the production amount of their portfolio companies. For financial institutions' per portfolio calculation, it is common to weight-average the physical intensity of all the companies in a sector by the proportion of finance/investment in the sector.

It represents the progress of decarbonization by improving the efficiency of production processes, neutrally from the increase or decrease in production volume due to demand fluctuations, which can be applicable to some sectors like power sector.

Economic intensity is an indicator to represent the emission efficiency per added economic value, which is calculated by dividing all portfolio companies' emissions by economic metrics such as revenue. For financial institutions' per portfolio calculation, several methodologies are presented, one of which is to weight-average the portfolio companies' economic intensity (companies' emissions divided by their revenues) by the proportion of finance/investment in the sector. Another is to divide the absolute financed emissions by finance/investment amount.

This can represent emission efficiency neutrally from company size, growth ratio, or finance institution's increase or decrease in finance/invest amount, which will pave the way to compare among portfolios and sectors.

<Examples of per portfolio calculation methods for physical and economic intensity>

$$\text{Physical Intensity} = \frac{\sum_c \left[ \frac{\text{company emissions}_c}{\text{physical metrics (eg. production amount)}} \times \text{current value of investment}_c \right]}{\text{total value invested to the sector}}$$

$$\text{Economic Intensity} = \frac{\sum_c \left[ \frac{\text{company emissions}_c}{\text{economic metrics (eg. revenue)}} \times \text{current value of investment}_c \right]}{\text{total value invested to the sector}}$$

#### Appendix 4 Calculation and Disclosure of Financed Emissions limited to projects with use of proceeds project

Suppose Company X had raised a total of 80 billion yen, 20 billion yen each from Banks A, B, C and D, and with the launch of its new projects where transitional technology is implemented, Company X just raised an additional 20 billion yen from Bank D.

Below provides the current and proposed calculation methods for financed emissions in the above situation.

<Before transition finance for the project >

- Total amount raised : 80 billion yen (Bank A, B, C and D each 20 billion yen)
- Company X GHG emissions : 16 million t-CO<sub>2</sub>e
- Financed emissions of banks : 4 million t-CO<sub>2</sub>e / bank

<After transition finance for the project>

- Total amount raised : 100 billion yen (Bank A, B, C each 20 billion yen, Bank D 40 billion yen (including 20 billion yen of transition finance))
- Company X GHG emissions : 18 million t-CO<sub>2</sub>e (including 2 million t-CO<sub>2</sub>e from the project)

【Current method for Financed emissions calculation】

- Financed emissions of Bank A, B and C : 3.6 million t-CO<sub>2</sub>e / bank  
(18 million t-CO<sub>2</sub>e  $\times$   $\frac{20 \text{ billion yen}}{100 \text{ billion yen}}$ )
- Financed emissions of Bank D : **7.2 million t-CO<sub>2</sub>e**  
(18 million t-CO<sub>2</sub>e  $\times$   $\frac{40 \text{ billion yen}}{100 \text{ billion yen}}$ )

【Proposed method for financed emissions calculation】

- Financed emissions of Bank A, B and C : 4 million t-CO<sub>2</sub>e / bank  
(16 million t-CO<sub>2</sub>e  $\times$   $\frac{20 \text{ billion yen}}{80 \text{ billion yen}}$ )
- Financed emissions of Bank D : **6 million t-CO<sub>2</sub>e**  
(16 million t-CO<sub>2</sub>e  $\times$   $\frac{20 \text{ billion yen}}{80 \text{ billion yen}}$  + 2 million t-CO<sub>2</sub>e  $\times$   $\frac{20 \text{ billion yen}}{20 \text{ billion yen}}$ )

<5 years after transition finance for the project>

- Total amount raised : 100 billion yen (Bank A, B, C each 20 billion yen, Bank D 40 billion yen (including 20 billion yen of transition finance))
- Company X GHG emissions : 16.5 million t-CO<sub>2</sub>e (including 0.5 million t-CO<sub>2</sub>e from the project)

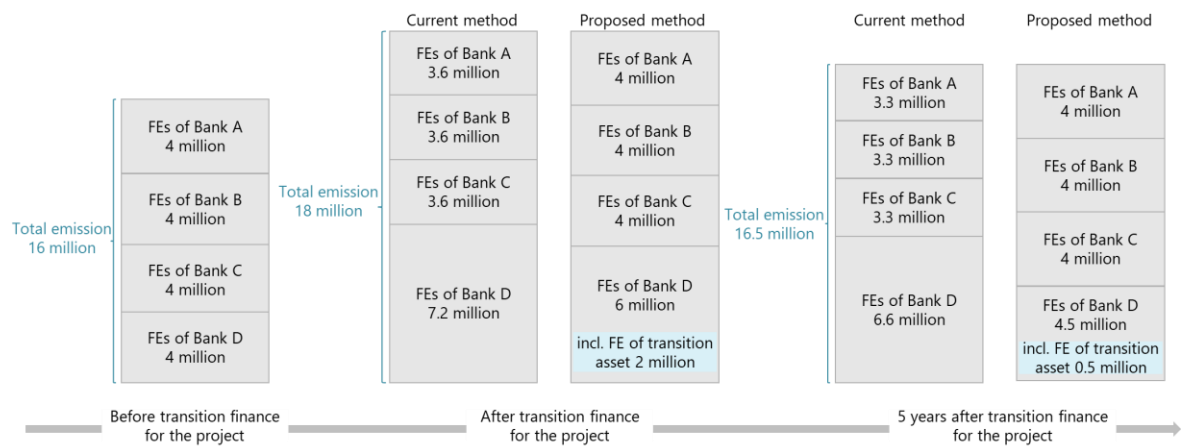
【Current method for Financed emissions calculation】

- Financed emissions of Bank A, B and C : 3.3million t-CO2e / bank  
 $(16.5 \text{ million t-CO2e} \times \frac{20 \text{ billion yen}}{100 \text{ billion yen}})$
- Financed emissions of Bank D : **6.6 million t-CO2e**  
 $(16.5 \text{ million t-CO2e} \times \frac{40 \text{ billion yen}}{100 \text{ billion yen}})$

【Proposed method for financed emissions calculation】

- Financed emissions of Bank A, B and C : 4 million t-CO2e / bank  
 $(16 \text{ million t-CO2e} \times \frac{20 \text{ billion yen}}{80 \text{ billion yen}})$
- Financed emissions of Bank D : **4.5 million t-CO2e**  
 $(16 \text{ million t-CO2e} \times \frac{20 \text{ billion yen}}{80 \text{ billion yen}} + 0.5 \text{ million t-CO2e} \times \frac{20 \text{ billion yen}}{20 \text{ billion yen}})$

(Unit: t-CO2e)



## Appendix 5 Execution Capability for Decarbonization-related Measures

<Efforts towards decarbonization aside from financing activities>

### 1) Financial institutions by key policies

【Overview】

- By announcing finance policies related to decarbonization and disclosing the degree of portfolio alignment, financial institutions may indicate the progress of its decarbonization plan. Below are examples of such policies:
  - Policies related to fossil fuels
  - Policies related to deforestation

### 2) Amount, number, or proportion of products and services that are aligned to its net-zero transition plan

【Overview】

- May be considered one of the indicators representing the extent of a financial institution's net-zero transition plan execution.

### 3) Amount, number, or proportion of clients or portfolio companies with climate-related engagement activities

【Overview】

- Possible indicators include the number or proportion of companies and/or the amount of finance/investment to such engaged companies, based on portfolio, theme, or types of the companies.
- Engagement with other stakeholders such as academia and government authorities, (though qualitatively different from the former) may also be an option. Qualitative disclosure is more appropriate for such cases.

<Governance and organizational structure related to decarbonization>

### 4) Number or proportion of employees and board members involved in decision-making and efforts on climate related affairs

【Overview】

- Possible indicators include:
  - Employees and management who have completed climate-related training
  - Specialists on climate change and other related issues
  - Management and board members with remuneration linked to the progress against and achievements of climate-related targets
  - Amount of human capital investment to enhance capacities

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