

# **Transition Finance Scorebook 2024**

November 2024



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### Preface

To achieve Net Zero at the earliest on a global scale, in addition to financing green assets such as renewable energy, it is essential to support the transition of high-emitting sectors, especially in emerging countries or countries such as Japan, where technological and economic alternatives for decarbonization are limited and a leapfrog to Net Zero is challenging.

Many financial institutions have recently set goals to achieve netzero GHG emissions in their portfolios by 2050. However, in the process of achieving decarbonization, a significant amount of funding is required to realize a "just transition" that does not create any economic or social disparities. If financial institutions reduce their funding to lower their own portfolio GHG emissions, they will not be able to contribute adequately to the decarbonization of the real economy. It is crucial to engage in dialogue with customers, understand in details the circumstances of each region and sector, and determine whether customers' efforts contribute to sustainable decarbonization and transition. Providing appropriate transition finance and supporting innovation for the establishment of nextgeneration technologies are essential, as these actions will lead to the decarbonization of the real economy.

There are various definitions of Transition Finance, but it is generally defined as financing aimed at supporting initiatives that reduce greenhouse gases (GHG) in accordance with long-term strategies aligning with the Paris Agreement. Such financing contributes to the decarbonization of the real economy. SMBC Group defines Transition Finance as financial services provided to clients aiming to support them align their business and/or operations with pathways in line with the Paris Agreement. Such transactions involve customers with a credible transition strategy aligned with the Paris Agreement.

In May 2023, SMBC Group published the "Transition Finance Playbook," which outlines our views, criteria, and operational methods related to transition finance. To date, we have received over 100 inquiries about domestic and international transactions and certified 36 cases as transition finance. Additionally, we have engaged in dialogue with various stakeholders, including governments and governmental agencies, financial institutions, investors, analysts, NGOs, and others, based on Playbook.

We have now compiled the experiences, learnings, and challenges identified from the operation of Playbook and are pleased to share them with our stakeholders in the form of the "Transition Finance Scorebook." Playbook and this Scorebook will be continuously revised and improved through ongoing dialogue with stakeholders. Achieving a decarbonized society cannot be accomplished by our efforts alone; it requires a collective effort from society as a whole. We hope our experiences and learnings will be utilized by stakeholders and contribute to decarbonization, which would be a source of great satisfaction for us.

The SMBC Group is committed to supporting our customers' transitions towards a sustainable society, working together as a unified group.

SMBC has played a leading role in transition finance, including the development of the "Transition Finance Playbook."

This Scorebook introduces practical measures and challenges backed by past practices and experiences, contributing to the further promotion of transition finance in the future.

For example, while the importance of decarbonized power sources in the decarbonization of electricity is self-evident, in some countries and regions, it is realistic to utilize gas-fired power as a firming power source to support the large-scale introduction of renewable energy during the transition process. This Scorebook aims to provide insights into promoting transition finance that can contribute to the decarbonization of the real economy from a medium- to long-term perspective while avoiding the risk of carbon lock-in.

Achieving carbon neutrality requires the collaboration of various stakeholders, including not only companies and financial institutions but also governments, authorities, and investors. Investing in the development of new technologies, which carry uncertainties regarding their feasibility and marketability, represents a high-risk investment for companies. Supporting such high-risk technological developments and the companies undertaking them also demands significant risk-taking from financial institutions. Therefore, policy support to distribute these risks between the developers and users of technology, as well as between the public and private sectors, is necessary. We hope that by advancing decarbonization initiatives, ensuring high transparency through enhanced disclosures, and fostering constructive dialogue and collaboration among all stakeholders, we can take steady steps toward realizing a decarbonized society.

#### Yukari Takamura

Professor at the Institute for Future Initiatives, The University of Tokyo, Member of the Editorial Board of Journal Sustainability Science and of the Editorial Advisory Board of Journal Climate Policy, Member of Board of Directors of the Japanese Society for Environmental Economics and Policy Studies



# **Executive Summary**

# **Concept of Transition Finance**

Transition finance is a financing method aimed at supporting companies that are making steady efforts to reduce GHG emissions in accordance with long-term strategies to achieve a decarbonized society.

### Pathway to carbon neutral society

#### Point

- The pathways to decarbonization are expected to be diverse, considering the characteristics of each country and industry.
- There are many technological and cost-related challenges in decarbonizing society, and it cannot be achieved in one leap.



Source : Ministry of Economy, Trade and Industry (METI) HP "Transition Finance"

### Example of transition (power sector)

#### Point

- The transition to a decarbonized society requires business restructuring and large-scale investment.
- It is important financial institutions support companies working towards the transition to a carbon neutral society.



# **Transition Finance Playbook**

**Executive Summary** > Track record > Approach for transition > Addressing the challenges > Appendix

In 2023, SMBC published the Transition Finance Playbook<sup>\*\*1</sup>, disclosing our definition of transition finance.

Transition Finance	Purpose	Financing to brid	ge the gap to a	decarbonized e	conomy	SMBC work
	Our definition	Financial services with pathways in	inancial services aiming to support clients align their operations with pathways in line with the objectives of the Paris Agreement.			
	Principles	Do No Significant Harm	No carbon lock-in	Best available technology	Just transition	5294 (1996) (1997)
Objectives of the Playbook		<ol> <li>Develop objective criteria to define Transition Finance</li> <li>Ensure accountability towards stakeholders</li> <li>Leverage the Playbook for customer engagement</li> </ol>				ACMAN CALL AND A CALL
Targeted sectors		Power	Oil and Gas	New Steel	New Automobile	
A year of implementation in figures *as of September 2024		We labeledWe engaged with36 transactionsMore than 100 clients				
Feedback fro stakeholders	m our	"The Playbook is a "The Playbook is a local context" (Inve	'The Playbook is a practical tool to support transition" (Foreign authorities 'The Playbook is a realistic initiative, designed in detail according to techn ocal context" (Investor/Rating agency)			
		"We understand w manufacturer)	e need to explai	n the story toward	ds decarbonization '	(Heavy industry



7

### Key message : Need to enhance support to our clients in their transition journey

Cor a Agr	mpanies struggling to align with the Paris reement need support	<ul> <li>Not supporting clients willing to transition despite not being aligned will only end in delaying the transition.</li> <li>Supporting their transition and buy-in from the overall ecosystem is essential.</li> </ul>				
		Companies are <b>willing to align with the Paris Agreement</b> , but often face constraints outside of their control				
		Unclear CN path Cost sharing		Technology innovation		
Constraints to align with the Paris Agreement		Aligning to a 1.5C scenario is challenging for companies, especially in the absence of localized scenarios, taking into account local context.	Aligning to a 1.5C scenario is challenging for companies, especially in the absence of localized scenarios, taking into account local context. Balancing the transition with affordability, stability and security			
Ca	III for action 🦽					
1	Detailing national roadmaps	It is important to develop decarbonization roadmaps based on scientific evidence that considers national and regional circumstances, for companies to advance their efforts towards a 1.5°C scenario that reflects local characteristics.				
2	Financing where the emissions are	Not supporting customers who find it difficult to develop transition plans could be counterproductive to decarbonization. <b>Integrating customers' strategies and challenges into the decision-making process of financial institutions and considering how to support customers is key to supporting the transition of both the customers and the institutions.</b>				
3	Cost sharing mechanisms	As the transition of energy sector from traditional, low-cost fossil fuel-dependent power systems to the implementation of CCS, hydrogen co-firing, and new energy sources is needed, it is necessary to consider how to share the additional costs across society in order to achieve both secure and affordable power supply and transition.				
4	Blended finance Financing scheme that combines public and private capital combines public and private capital combines appropriate risk management.					



### Key message : Clarifying role of gas-fired power plant in the transition is crucial

	1 Meeting inc	reasing power demand	2 Fuel for	firming and captive power
Gas-fired power plants remain important to achieve the energy transition	<ul> <li>In some countries grows faster than energy, meeting t is difficult.</li> <li>To address this de Transition", it is secure energy su</li> </ul>	<ul> <li>Supply to gas fired power plants leveraged for firming and captive power remains necessary for a certain period.</li> <li>Understanding and appropriately supporting the role of gas based on each local context in the transition to renewable energy is important</li> </ul>		
Consideration when supporting gas-fired power plants	Avoiding carbon lock-in	Alignment with GHG Agreement is importa	reduction targets c ant	consistent with the Paris
Carbon lock-in		Our pr	ocess to avoid ca	rbon lock-in
What is carbon lock-in ? Carbo fuel a despit them delayi	on lock-in occurs whe ssets continue to be te the possibility of s with low-emission al ng or preventing the tr	en fossil used, ubstituting Iternatives, ransition to	sessment on rategy	Confirm borrower/ sponsor's commitment to reach net zero aligned with the Paris Agreement
near-z	zero or zero-emission a	alternatives.		
Factories   2020     A   Closure	2030 2040 Car	2050 2 As rbon lock-in	sessment on easures to avoid rbon lock-in	Confirm borrower/ sponsor's commitment to avoid carbon lock-in

# **Our track record with the Playbook**

## SMBC has published the Transition Finance Playbook in 2023

The Transition Finance Playbook aims at enhancing our support to the real economy's decarbonization.

For financial institutions, decarbonization means reducing GHG emissions from their investment and lending portfolios. To measure progress, Financed Emissions (FE) are to some extent an effective indicator. However, in the process of reducing FE to zero, there is a possibility that this indicator may temporarily increase due to supporting the transition of customers.

Therefore, if financial institutions only assess their progress based on the temporary increase or decrease of FE, we might delay financing necessary activities to the transition because they would negatively affect the FE indicator.

One of the Playbook's objectives was to manage this indicator by better defining which transactions corresponded to Transition Finance. The Playbook is essential to making sure we are able to support our customers' transition, while at the same time managing our own transition adequately.

#### Call for action –Finding the right indicators

It is important not to measure decarbonization progress solely by FE at a single point in time, but to value disclosures that reflect changes over time and multidimensional disclosures (e.g., disclose transition finance as part of the breakdown of FE) that combine other indicators. We will cooperate with other financial institutions to consider more effective indicators.

#### Transactions

2023

Since introducing the Playbook in May 2023, SMBC has engaged with domestic and international customers on transition more than 100 times and internally classified 36 transactions as Transition Finance (May 2023 ~ September 2024).

	Japan	APAC	North America	EMEA	Total
General corporate	15	2	2	0	19
Use of Proceeds determined	0	13	2	2	17
Total	15	15	4	2	36

#### Customer engagement and participation in events

Transition Finance is still in its nascent stage, and SMBC Group has explained Transition Finance and introduced the TF Playbook through engagements with various stakeholders and participation in events. We are incorporating feedback into the revisions of the Playbook and the various initiatives of our group.

	Number of engaged companies by September 2024
Corporates	86
Financial Institutions	13
Investors/Rating Agencies/Regulators	7
Total	106

#### **Participated events**

IIF Sustainable Finance Summit in Tokyo, Ecosperity 2023, UNEP FI Tokyo Conference 20th Anniversary Symposium, Multiple Events at COP28, etc. More than 20 events in Total

# Stakeholder feedback

While stakeholders usually see the Playbook as "practical" and "detailed," some stakeholders have raised concerns regarding the criteria used to assess transition, among other challenges. We will continue to aim at ensuring and improving the credibility of the Playbook while maintaining its practicality.

#### **Governments/ Governmental Institutions**

Foreign authorities, Overseas state-owned oil company, etc	<ul> <li>Transition Finance Playbook is a practical tool to support transition</li> <li>Currently considering Scope 3 reduction targets, wants to continue dialogue</li> </ul>
Financial Institutions	
Investor/Rating agency, Asset management company, Regional bank	<ul> <li>The Playbook is a realistic initiative, designed in detail according to technological trends and local context. Especially where the demand for electricity is growing in APAC, the balance between energy security and transition finance is important.</li> <li>On the other hand, labeling itself is not the goal. It is important to continue engagement afterward.</li> <li>It has been explained that, unlike in other countries, Japan's coal-fired power plants can be</li> </ul>

certified for transition finance even without CCUS. Although regional circumstances can be taken into account, the differences of standard between countries stand out.

### Corporates

- We understand we need to explain the story towards decarbonization Heavy industry manufacturer, • Even if it is currently possible to be recognized as transition finance, future changes in Trading company, regulations and policies may make support difficult Power company, • We expect SMBC will engage with other banks and work towards initiatives across Japan. It Consulting firm
  - would be beneficial if the perspectives of bond investors and asset management companies could be somewhat standardized.

### NGOs

# Transition Finance Playbook – a pragmatic approach

# **Our approach to Transition Finance – Guiding Principles**

The Transition Finance Playbook details SMBC's definition of and criteria for Transition Finance transactions as well as the principles underlying our approach to Transition Finance. Our approach to some of these principles is detailed in the following pages.

#### **Eligibility assessment approaches**

SMBC Group's approach to assess transition finance differs between Project Finance, General Corporate Purpose, and Use of Proceeds.

Finance Type	Assessment on			
Project Finance	DEinancing access 1 Derancition strategies			
Use of Proceeds	UFinancing assets +@Transition strategies			
General Corporate Purpose	②Transition strategies			

Assessment approach						
	<ul> <li>Assets are assessed based on SMBC's Internal Taxonomy</li> </ul>					
<b>1</b> Financing Assets	<ul> <li>The Internal Taxonomy has been developed according to best practice, regional differences and pathways and technological information. To the extent possible, it takes into account alignment with national transition plans / pathways.</li> </ul>					
<ul> <li>Transition</li> </ul>	<ul> <li>Commitment for net zero by 2050 and alignment with the Paris Agreement</li> </ul>					
<sup>2</sup> Strategies	Disclosure and reduction targets for GHG emissions					
	Concrete transition strategies to achieve the targets					

#### SMBC's principle on Transition Finance



#### **Flexibility on transition finance**

Having a clearly defined Transition eligible Use of Proceeds makes it easier for financial institutions to support customers. At the same time, customers may prefer to keep some flexibility on the Use of Proceeds, as there might be changes in the business environment, such as technology and regulatory trends.

SMBC Group intends to keep a balanced approach between the flexibility needed by our customers and the credibility required for Transition. Going forward, we will continue to engage in dialogue with our customers to be able to support them.

### **Case studies – Early retirement of Australian CFPPs**

### Australian CFPPs

• Early retirement/ decommissioning of coal-fired power

#### **Case overview**

<ul> <li>Early retirement/ decommissioning of coal-fired power plants in Australia and conversion to batteries, etc.</li> </ul>			Amount	Loan information 11 Million USD
<ul> <li>Coal-fired power plants to be shut down up to 10 years earlier than initially planned due to the development of batteries.</li> </ul>			Bilateral/ syndicate	Syndicate
			Eligi	bility Assessment
			Evaluated assets and strateg	jies Assessment result
SMBC	SMBC Transition Finance		Coal-fired power plant	It is determined to be a transition asset based on SMBC Group's Internal Taxonomy, as it is expected to have a GHG emission
			· · ·	reduction effect by being decommissioned and converted into a battery facility.
Client	Early retirement of coal-fired power plants Expansion of renewable energy capacity, etc.	Assessment on strategies	Net zero commitment by 20 Interim target Strategies for net zero Green Transition	We have confirmed that the client's strategy, including its commitment to net- zero by 2050 and the transition strategy disclosed in our reports, meets SMBC's strategic criteria
Impact		Reg	gular monitoring on:	Monitoring
Social Value	Shut down up to <b>10 years earlier</b> than the initial plan GHG reduction up to <b>16 MT per year</b>	• F • F • F	Progress of the client's strated Progress of coal-fired power p Progress of conversion to batt	gy plant decommissioning plans tery facilities

## Spotlight – Our approach to assessing carbon lock-in risk

Avoiding carbon lock-in is one of the main principles of Transition Finance. Carbon lock-in occurs when fossil fuel assets continue to be used, despite the possibility of substituting them with low-emission alternatives, delaying or preventing the transition to near-zero or zero-emission alternatives. Assessing carbon lock-in risk includes understanding to what extent fossil fuel assets remain necessary in a specific context, while ensuring the asset is either decarbonized or retired when necessary.

For example, at the very least, assets with associated GHG emissions should be retired or fully decarbonized before 2050 (or according to the carbon budget available in a 1.5C scenario). However, the decarbonization of such assets may depend on technologies which are not yet available at a viable cost as of today, but may become affordable in the future. These technologies, such as CCS or co-firing, are expected to be widely available at scale in the years to come and could play an important role in the decarbonization of existing assets. Companies plan their investments in transition power sources based on expected future costs for these decarbonization options. However, the assumptions used by those companies, such as future costs, may not be achieved at the time when the company expected to decarbonize the assets.

Financial institutions need to be aware of and manage this risk. Avoiding carbon lockin is a key principle of the Playbook. For all Use of Proceeds transactions, SMBC confirms to what extent the asset will be retired in a timeline consistent with the objectives of the Paris Agreement. When clients consider decarbonizing the asset instead of decommissioning it, we confirm to what extent the asset will be decarbonized, as well as potential challenges to achieve it.



# Our experience with addressing carbon lock-in

Since the start of implementing the Playbook, a number of transactions reviewed have shown some risk of carbon lock in. This includes transactions involving future decarbonization of gas fired power plants with Power Purchase Agreements (PPA) extending after 2050:

#### Transaction 1 – Gas fired power plant in Asia

Sponsors and host country are committed to reach net zero by 2050. The sponsors have indicated considering the following decarbonization options:

- Reducing the PPA to terminate it before 2050
- Investing in a combination of co-firing and CCS.

However, negotiations with the offtakers on reducing the PPA or cost sharing mechanisms are expected to continue after financial close, while there is still some level of uncertainty on the financial viability of CCS/co-firing in the next 10 to 15 years.

#### Transaction 2 – Gas fired power plant in the Middle East

Sponsors are committed to reach net zero by 2050. The offtaker included decarbonization provisions in the PPA, with the possibility for the sponsors to introduce CCS with cost sharing mechanisms. However, as this depends on the offtaker's agreement, there is no guarantee that the asset will reach net zero emission in due time.

# Spotlight – Just Transition and DNSH

In financing the carbon transition that disrupts the traditional way our economies are operating, lenders play an active role in the social transformation of local ecosystems. In order to guide its investment decisions, SMBC's policies ensure that client engagement abides by the principles of a "Just Transition" and "DNSH".

#### Impact on the workforce

The carbon transition will force the closure of traditional businesses, resulting in a large impact on the workforce. In emerging economies, safety nets may not be sufficient to support the negative effects of the transition.

At the same time, workers can be reskilled to take on new jobs created by the green economy.

It is therefore important to evaluate the impact on the workforce of proposed transition projects. Policies must be in place to ensure that social dialogue is fostered, workers receive protection for their social rights, decent work is being offered in replacement for the lost jobs and education programs are offered to support the shift in knowledge.

#### **Phaseout of coal**

The phaseout of coal will have the impact of forcing mine closures and resulting in job losses. It is estimated that by 2050, 1 million coal mine jobs will be lost, with China and India being the countries impacted the most

#### Total workforce in the coal industry

The coal industry is a massive sector employing approximately 2.3 million workers worldwide, and the impact of phasing out coal is significant. Workers in China account for about 65% of this total.

#### Estimated job losses in the industry

The number of job loss in the coal industry is expected to peak in the 2040s, reaching a cumulative total of one million.





### Spotlight – Just Transition and DNSH

In financing the carbon transition that disrupts the traditional way our economies are operating, lenders play an active role in the social transformation of local ecosystems. In order to guide its investment decisions, SMBC's policies ensure that client engagement abides by the principles of a "Just Transition" and "DNSH".

#### Impact on local communities

Access to energy is an essential part of a well-functioning society. Rural areas, for examples, where a power company may be operating an electricity generation plant, benefit from access to the grid. If such asset is being decommission in response to a shift to renewable energy, it is important to ensure that the fair and equitable access to energy is maintained.

Decisions will be made on how to upgrade electric networks to sustain the shift to new forms of electricity production. In these decisions, some rural areas may be at risk of losing access, while others may be impacted by the use of land and marine resources to produce power.

Local communities may resent the expansion of new technologies, for cultural, religious or other social reasons. Through local consultations, the local communities can be associated with the project from an early stage to ensure that their concerns are taken into account.



#### Impact on local biodiversity

Large utility-scale renewable energy solar, such as solar plants, take up a lot of land, potentially causing environmental degradation and loss of native habitats. The local fauna and flora can be impacted.

The impact on biodiversity can also have a negative effect on the livelihoods of local populations. A shift in water flows due to hydroelectric projects can cause river water levels to fall and local biodiversity to suffer, causing a fall in livelihoods for local populations.

Long-term impacts must be evaluated when considering any renewable energy project that would result in such impact on biodiversity.

#### Impact of hydropower on biodiversity

Hydropower, which in some areas represents a major contributor to the shift to renewable energy, can have a profound impact on local biodiversity conditions. Fish populations may be at risk of not being able to access their breeding grounds, when hydropower turbines are installed that block the natural water streams.

### Our approach to Transition Finance – Considering local context

An important element of our approach to Transition Finance is to take into account local context when assessing transactions.

There is no one size fits all for the transition. Pathways vary significantly depending on the circumstances of each country and region, such as their energy mix, economic conditions, land availability, and industrial characteristics.

Regions face different challenges and do

Norway

kWh

not have access to similar resources.

For example, a country with limited land availability will experience more difficulties in ramping up renewable energy compared to others. Differences between countries has been detailed in publications such as Japan's Ministry of Economy, Trade and Industry's Transition Roadmap for Power Sector (see figure below)

#### **Our approach**

While our assessment criteria are similar from one region to another, we take into account the local context when assessing the assets. For example, co-firing may be aligned with Japan's overall strategy, but may not be accepted in the EU as a decarbonization option.

to increase the renewable energy ratio.

renewable energy facilities.

• Limited available land makes it difficult to expand



- a small amount of renewable energy generation can cover most of the electricity demand.
- A large amount of available land facilitates the installation of renewable energy facilities.

\*Approximately 5 billion

## Sectoral scope – Power and Oil & Gas

The Transition Finance Playbook focuses on the sectors most in need of transitioning: in addition to the power and oil & gas sectors, the sectoral scope includes the steel and automotive sectors (added in April 2024).

#### **Power sector**

SMBC's interim targets for its Financed Emissions in the power sector range from 138 to 195 g-CO2e/kWh, consistent with 1.5C pathway to a goal of carbon neutrality by 2050.

Achieving the decarbonization of the Power sector is essential to support the transition of the overall economy.

SMBC has defined eligible assets based on local taxonomies, roadmaps and the electricity mix in general, which enables us to support our customers in the sector for their transition.

#### **Interim Target for Power Sector**



#### Oil and Gas sector

SMBC's interim targets for its Financed Emissions in the Oil and Gas sector range from 29 to 35.9 Mt CO2e (absolute emissions).

Decarbonization of the sector is also essential to the transition. Research suggests that fossil fuels utilization will decrease towards 2050, but will not be entirely phased out. Major Oil and Gas companies have pledged to decarbonize Scope 1 and 2 for the upstream sector in the Oil and Gas Decarbonization Charter, agreed during COP28.

In addition, companies in the sector willing to decarbonize their Scope 3, by diversifying their activities or removing carbon, should also be supported to achieve decarbonization.

#### Interim Target for Oil and Gas Sector



# 2024 update – Steel sector

### SMBC's interim targets for decarbonization of steel sector

SMBC's interim targets for its Financed Emissions in the steel sector range from 1.2 tCO2e per ton of steel to 1.8 tCO2e per ton of steel, consistent with 1.5C scenario to a goal of carbon neutrality by 2050.

The Playbook has been extended to the steel sector to better support our clients in decarbonizing across all processes used in steelmaking, recognizing the challenges experienced by steelmakers in Japan and globally. Ultimately, SMBC aims at achieving its interim targets while leveraging the Plavbook.

#### **Interim Target for Steel Sector**



#### Challenges in the steel sector

The steel sector accounts for a large share of industrial emissions, and even in the NZE scenario, production is expected to grow by 2030, making the energy transition increasingly important



Source: the Ministry of the Environment "Greenhouse gas emissions in fiscal 2021 (confirmed values)", IEA "Global steel production in the Net 0 Scenario, 2010-2030," Licence: CC BY 4.0

The transition of the steel sector requires simultaneous realization of GHG reduction, cost maintenance and secure supply.

# 2024 update – Automobile sector

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#### SMBC's interim targets for decarbonization of auto sector

In March of this year, the SMBC Group set an interim reduction target for the automotive sector at 120-161 g-CO2e/vkm.

In adding the automotive sector to this playbook, we consider challenges in the sector and intend to support a transition tailored to regional realities, for example, by positioning PHEVs and HEVs as transition assets under certain conditions. Using this playbook, which clarifies SMBC's expectations and standards for the automotive industry, we will promote dialogue with our customers towards decarbonization.

#### **Interim Target for Automobile Sector**



#### Challenges in the automotive sector

The automotive sector is one of the most emission-intensive industries, and the transition is essential for achieving carbon neutrality globally.



Addressing the challenges of the Transition – a practical approach

### Addressing the challenges of the transition

Designing a framework to assess transactions from a transition point of view, and implementing this, comes along with significant implementation challenges and considerations. The following section details challenges and considerations experienced by our teams during the design and implementation phases of the Transition Finance Playbook.

They reflect our experience as a global financial institution, with a strong footprint in Japan and Asia Pacific in general. This section also highlights actions that could be taken by financial institutions, customers and regulators, among others, to further accelerate the transition towards a net zero society.



#### Challenges

#### Alignment with the Paris Agreement:

Maintaining the credibility of transition finance transactions is essential for financial institutions. It requires ensuring the pathways financial institutions leverage are aligned with the Paris Agreement, while also assessing our client's strategies.

Importantly, financial institutions participating to GFANZ and NZBA are committed to a 1.5C pathway. However, it is challenging for a majority of our clients to align to a 1.5C pathway.

#### Gas-fired power plants remain crucial to address the transition

The role of gas in the Transition is the subject of significant debate. While it is important to recognize unabated gas fired power plants should not constitute a significant part of the electricity mix, it is also essential to understand to what extent gas can be considered a transition fuel.

#### **Challenges and lessons learned**

- ✓ Unclear 1.5 scenarios
- ✓ Assessing the alignment of our clients
- ✓ Constraints that SOEs face
- ✓ Assessing funds and PE
- ✓ The cost of transition
- ✓ Addressing power demand
- $\checkmark$  Gas-fired power generation as firming power
- $\checkmark$  Support for captive power generation

### Alignment with the Paris Agreement: Unclear 1.5 scenarios

There is no one-size-fits-all solution to decarbonizing the economy. While there are global pathways to remain on track to limit global warming to under 1.5 °C above pre-industrial levels (1.5 °C pathway), these are usually not disaggregated by region or country.

There is also limited availability of region/country specific scenarios explicitly aligned with the 1.5 °C pathway, especially disaggregated by sector.

This is challenging for financial institutions, which are not able to compare the environmental performance of a transaction against a localized 1.5 °C pathway.

This translates into financial institutions having to rely on a global scenario, which is not adapted to all countries.

In addition, a number of emerging countries have chosen to commit to net zero by 2060 or 2070. This may not be aligned with a 1.5C scenario, but remains aligned with the broader objectives of the Paris Agreement

Financial institutions may rely on their own pathway to decide on a portfolio basis, or decide to take a conservative approach and decide that all transactions, irrespective of their location, should be aligned with a global scenario, potentially resulting in less projects contributing to the transition being financed.

SMBC has chosen to leverage two approaches. SMBC relies heavily on local sectoral roadmaps and policies, to identify which transactions may be aligned with local context. This is then compared to SMBC's sector specific portfolio approach, aligned with the 1.5 °C pathway, to confirm alignment on a portfolio level.

#### Net zero roadmap for 2050 by IEA

There is a global roadmap, but it has not been detailed at the national or regional level enough.



Source: IEA"Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach"Licence: CC BY 4.0

#### Call for action –Detailing national roadmaps

Net Zero scenarios developed by international organizations often use a global approach and do not necessarily take into account regional characteristics. In such a context, even when financial institutions are ready to take into account regional differences and when clients propose 1.5°C scenario which consider regional differences, the lack of credible national and regional plans and roadmaps may lead financial institutions to be perceived as not credible when financing the transition. As a result, it is likely this could hinder the transition as whole.

This outlines the importance for governments to develop science-based policies and roadmaps, such as clarifying the role of gas-fired power in their own transition and demonstrating the consistency coal-fired powerplant decarbonization measures, such as co-firing with ammonia, with the 1.5°C scenario. Executive Summary > Track record > Approach for transition > Addressing the challenges – alignment with Paris Agreement/ role of gas-fired power > Appendix

### Spotlight – Regional pathways

Some countries have developed their own pathways towards Net Zero by 2050, in alignment with the objectives of the Paris Agreement. These initiatives are essential to adequately reflect local context on Transition Finance policies and assessments. Some examples include Japan Ministry of Economy, Trade and Industry's Transition Roadmaps, as well as the Australian Energy Market Operator's Integrated System Plan, among others.

#### Transition Roadmap for Power Sector in Japan



2030~2040

Expanding the introduction of the co-firing of ammonia/hydrogen and increasing the ratio of them to achieve higher co-firing.

2040~2050

Achieved carbon neutrality by significantly reducing emissions through the commercialization and expansion of ammonia/hydrogen exclusive firing.

### Source: Agency for Natural Resources and Energy "Transition Roadmap for Power Sector"

#### **Integrated System Plan in Australia**



Notes: Annual generation for 2023-24 has been estimated for the full financial year. "Flexible gas" includes gas-powered generation and potential hydrogen capacity. "CER storage" means consumer energy resources such as batteries and EVs.

#### Source: AEMO "Integrated System Plan"

### Alignment with the Paris Agreement: Alignment of our clients

The only way to confirm whether General Corporate Purpose financing can be considered as Transition Finance is to confirm the borrower's transition strategy, as there is no asset to assess.

This shows the importance of a well-crafted transition strategy, or transition plan of the borrower, as this is the basis for the assessment for financial institutions. Financial institutions usually assess the strategy's alignment with the objectives of the Paris Agreement.

As SMBC is committed to be aligning with the 1.5C scenario, SMBC requires its clients to be aligned or commit to be aligning with the 1.5C scenario as well for General Corporate Purpose transactions to be labeled as Transition Finance<sup>1</sup>. However, there is only a handful of companies with targets aligned to the 1.5C scenario. For example, these companies represented less than 15 percent of companies with targets validated by SBTi. As companies are part of a wider ecosystem, they do not always have the capacity to adopt more ambitious targets on their own. For example, utilities might be dependent on tariffs decided by other stakeholders, and not be able to recover costs if those are not reflected in their contracts with their offtakers. However, these companies might be willing to the make efforts within these boundaries. Most of APAC countries cannot pass on the cost to their people due to lower average income levels.

Financial institutions may thus not be able to support these companies with Transition Finance. However, it is important for lenders to recognize companies evolve in a wider ecosystem with regulatory and financial constraints, that they have sometimes only limited control on the transition to net zero.

1. Transactions which do not meet our criteria for the Transition Finance label are assessed for financing based on our credit policy

#### Number and percentage of companies with long-term 1.5°C target aligning with SBT



Source: SBTi, "Target Dashboard" as of August 2024

### Alignment with the Paris Agreement: Constraints that SOEs face

Managing the just transition to Net Zero requires supporting State-Owned Enterprises (SOEs) in their own transition. SOEs produce a significant share of energy-related GHG emissions. However, SOEs are bound to respect the commitments and overall strategies of their own governments. Some may be restricted in the documents they are allowed to disclose, making it SOEs towards their transition. challenging for financial institutions to adequately assess their transition strategies.

To resolve this, financial institutions have to rely on their relationship with the clients, which are often able to confirm their alignment with their government's net zero commitment and strategy, and to explain their strategy to achieve these goals. SMBC follows a similar approach, which allows us to support

#### Spotlight –Our approach to engagement

To ensure that we are able to understand our client's transition strategy and challenges beyond available public disclosures, we engage with our customers in relation with their transition journey.

For example, we have engaged with major utilities in Japan since the launch of the Playbook.

With some of our clients, discussions focused on how lenders and investors perceived specific technologies, such as ammonia co-firing, and their expectations in ensuring the credibility of the transition when leveraging such technologies.

#### Proportion of state-owned enterprises in the energy sector

The proportion of SOEs in the energy sector is particularly high in developing countries, and supporting these SOEs is crucial for promoting the transition in the electricity, oil, and gas industries.



Source: IEA, "Share of state-owned energy investments by economy type and sector 2019" Licence: CC BY 4.0

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### Alignment with the Paris Agreement: Assessing funds and PE

Private Equity and funds play an important role in the growth of investments in infrastructure, including for the energy transition. Infrastructure projects are interesting for Private Equity players, as they offer stable and predictable cashflows, as well as the opportunity to diversify from traditional asset classes.

As Private Equity players are now important players in financing energy transition infrastructure, it is important for lenders to properly understand and assess their transition strategies. For example, Funds tend to have a limited lifespan, which often ends well before 2050. In that case, Funds may have a transition strategy and short to medium term targets aligned with the objectives of the Paris Agreement, but no longterm target to 2050.

To address this, SMBC is assessing the overall objectives of the Funds, as well as (when available), the strategy of their main sponsors. In all cases, the alignment of their interim targets with pathways compatible with the Paris Agreement is assessed.



#### SMBC Group's approach to portfolio projects

### Call for action – "Financing where the emissions are"

#### Call for action –"Financing where the emissions are"

Global transition finance frameworks require customers to develop credible transition plans to reduce their emissions. However, as outlined in this section, a majority of companies have imperfect transition plans, often driven by circumstances out of their control. However, this does not mean they are not willing to transition.

Not supporting them to transition within this would be counterproductive, as they might be able to source financing from other sources as well.

As emphasized by GFANZ and its co-chair, Mark Carney, transition finance should "go where the emissions are". We believe that financial institutions should recognize the challenges experienced by their customers, and ensure they can safely transition, even when they do not qualify for transition finance.

To achieve this, understanding our customers' transition strategy and challenges in achieving it or in adopting more ambitious targets, is key. Integrating these into financial institutions' decision process will be key to support the transition of our customers and our own portfolio.

#### Transition finance principles by major organizations

The four key transition financing strategies

- Climate Change Climate Solutions: Entities and activities that develop and scale climate solutions
- Aligned: Entities that are already aligned to a 1.5 degrees C pathway
- GFANZ
   Aligning: Entities committed to transitioning in line with 1.5 degrees Caligned pathways
   Managed Phase Out: The accelerated managed phaseout of high emitting physicalassets
   Guiding Principles of the Transition Finance Framework
   Clients must have a credible, feasible, and sufficiently ambitious transition plan
  - Transition finance must meaningfully advance a client's netzero journey

Transition Principles for activity and entity level transitions

- Credible transition goals and pathways align with 1.5°C global warming limits
- Credible transition goals and pathways are established by the climate science community and are not entity specific
- **CBI** Credible transition goals and pathways don't count offsets, but should count upstream scope 3 emissions
  - Credible transition goals and pathways take into account technological viability, but not economic competitiveness
  - Credible transition means actually following the transition pathway – pledges, policies and strategies alone are not sufficient

Source: GFANZ "Scaling Transition Finance and Real-economy Decarbonization", NZBA "NZBA Transition Finance Guide", CBI "Financing a Credible Transitions"

### Alignment with the Paris Agreement: The cost of Transition

The IEA estimates 5 trillion USD of annual investments by 2030 will be required to meet the objectives of the NZE. Such a level of investment represents significant challenges for the public and private sector, as these need to be reflected on the cost of the products and services provided. While scaling-up investments is crucial to remain on track with the 1.5C pathway, increases in costs will also have a social impact, which outlines the importance of discussing and designing cost sharing mechanisms.

# Annual average capital investment to meet the objectives of the NZE



Source: IEA, "2021; Net Zero by 2050 A Roadmap for the Global Energy Sector" License: CC BY 4.0

#### Call for action –Cost sharing mechanisms

The key to achieve transition is to decarbonize the power sector. Electricity supply is one of the foundations of society, and cost increases have a significant impact on social and economic activities, as well as on the lives of the population. Many policies around the world focus on ensuring the stability and affordability of electricity supply. However, the power system in a majority of countries has historically relied on the availability inexpensive fossil fuels. Transitioning to renewable energy sources and achieving zero-emission electricity requires substantial investment.

To achieve transition while maintaining stable and affordable electricity supply, cost sharing mechanisms are crucial. Decarbonization options in the power sector, such as CCS and hydrogen co-firing, among others, require careful planning for their implementation. For example, it is essential to consider how to share the incremental cost for their implementation through tariff increases, fiscal support, and/or the utilities' own budget. Both corporates and financial institutions, along with the government, need to work together on this issue.

#### **Balancing security and decarbonization**

Japan's energy policy is based on the principles of the S + 3E, or Safety, Energy security, Economic efficiency and Environment. Acknowledging Safety as a premise, Energy Security is the most prioritized and then the remaining principles follow to be achieved. So, energy investments in Japan are made based on this balance.

For countries such as Japan, which has significant challenges to achieve a high renewable energy ratio, the pace of decarbonization and finance to support it needs to be balanced with energy security and affordability considerations.

### **Spotlight – Blended finance**

Emerging economies and developing countries experience different needs and challenges in transitioning compared to industrialized economies. Emerging economies usually experience a faster growth rate, which implies higher needs for energy. They may not be able to cater to these needs with green sources of energy right away, due to the unavailability of bankable projects, cost concerns, or technical concerns such as the grid suitability to variable renewable energy.

At the same time, it is essential for these economies to transition. Cost-sharing mechanisms to support the incremental cost of the transition for emerging economies will be crucial to support the transition. Costsharing mechanisms include blended finance.

Scaling-up blended finance could enable larger flows of capital to be deployed towards the transition in emerging economies. Such structures require the implication of concessional sources of finance such as Development Finance Institutions, Development and Philanthropies. They require time to be structured appropriately.



#### **Overview of Blended Finance**

#### Call for action –Blended finance

Blended Finance aligns public and private sector interests, allocating risks to parties best able to manage them. It is perceived as a key mechanism to mobilize private investment. Blended Finance answers to challenges such as high cost of capital, insufficient pipeline of projects and higher perceived risks in emerging economies.

While scaling up Blended Finance is seen as essential to address climate change in emerging economies, there are significant challenges to actually scale it up. Those include high sensitivity to the local context, complexity in terms of structure and long lead time due to negotiations between parties, for example, to reach the adequate amount of concessionality, among others.

Addressing these challenges is essential. This may include reviewing the mandate of Development Financial Institutions to accommodate higher levels of flexibility, as well as developing "templates" to expediate the structuring of transactions. Such models could be replicated by sector.

### Role of Gas-fired power: Addressing power demand

Transition from fossil fuels is essential for achieving net zero, but green energy alone may not be able to provide stable power supply or meet the increasing energy demand due to population growth. To simultaneously achieve a "just transition" and ensure energy supply, it is necessary to clarify the role of fossil fuels.

On a global basis, the total final energy consumption is expected to decrease significantly by 2050 (from approximately 325 EJ in 2020 to 175 EJ in 2050) according to the NZE Scenario.

However, this does not reflect significant differences between regions. In APAC, the demand for energy is expected to increase significantly compared to today. For example, energy supply in Indonesia is expected to grow from just above 10 EJ in 2020 to 18 EJ or more in 2050 (APS scenario). While a significant part of this increase will be ultimately catered for with renewable energy and other clean sources of energy, demand for energy will grow faster than the availability of clean energy. It is thus important to address this gap with transitional sources of energy such as gasfired power, which can bridge the gap until clean sources of energy are available at scale.

When labelling gas-fired power plant transactions, we ensure carbon lock-in is avoided and the transaction is aligned with the local context and policies. SMBC also recognizes that the using gas has a risk of methane leakage across the supply chain. We support initiatives contributing to reducing methane leakage, such as the Oil and Gas Decarbonization Accelerator (OGDA) and we engage with our clients on their strategy to reduce methane leakage

#### Global total final energy consumption(supply) by fuel in the NZE

Globally, the total final energy consumption (supply) is expected to decrease significantly by 2050



#### Total energy supply in Indonesia in the Announced Pledges and Stated Policies scenarios, 2000 – 2060



In some areas, energy supply is expected to grow

Source: IEA, "An Energy Sector Roadmap to Net Zero Emissions in Indonesia" License: CC BY 4.0

### Role of Gas-fired power: Gas-fired power as firming power

In addition, as needs for renewable energy expands, gasfired power generation will be required as firming power for a certain period.

Increasing the share of variable renewable energy in the electricity generation mix around the world will require firming power capacity to support grid stability or peak demands that cannot be served when the supply is insufficient. Ideally, firming power capacity could be supplied by stable renewable energy sources, such as geothermal power or hydropower stations, or by batteries.

However, stable renewable sources may not be available in all locations. As batteries are yet to be available at scale for a variety of uses, it is important to secure transitional sources of firming power, such as gas fired power stations, for renewable energy to penetrate at scale across regions.

Assessing whether a grid requires firming power, and to what extent firming power should be supplied by transitional sources of power can be complex for financial institutions. To assess this properly, SMBC assesses how specific countries and regions address their energy transition, and to what extent they will rely on transitional firming power sources.

This includes an extensive analysis of the current energy mix, energy policies, electricity mix forecast to 2050 and understanding to what extent renewable energy will replace fossil fuels in the short term. This enables us to take comfort that specific assets will be leveraged to support the transition and lead directly and indirectly to significant reductions of GHG emissions.

#### Global average short-term power system flexibility needs and supply in the APS, 2022-2050

The large-scale utilization of battery storage is expected to occur after 2030. Until then, the firming power for renewable energy will need to be provided by transitional energy sources.



Source: IEA "Batteries and Secure Energy Transitions" License: CC BY 4.0

#### Production cost of utility battery (STEPS, 2020-2050)

Cost of utility battery will decrease by 30-40% by 2030.



Source: IEA "Batteries and Secure Energy Transitions" License: CC BY 4.0

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# Spotlight – Transition of firming power

To utilize renewable energy sources such as solar, wind, and hydro, which have concerns about stable power supply, backup power sources are necessary to prepare for sudden increases in demand or sharp decreases in supply. Until battery storage becomes widely available, thermal power generation is likely to continue being the main source of firming power.

#### **Role of firming power**

#### Image for transition of firming power

			Brown/Transition Phase	Green
Demand forecast	Provides power when demand forecast errored and planned supply is insufficient	Summary	<ul> <li>Although renewable energy spreads a certain extent, thermal power generation is the main source of power</li> <li>Thermal power is mainly used as firming power</li> </ul>	<ul> <li>Large-scale renewable energy and off-grid power sources are the main sources</li> <li>Batteries with increased capacity and lower prices play the role of regulating power</li> </ul>
Renewable energy prediction	Provides power when a power shortage happens due to a discrepancy between the forecast and actual renewable energy generation	Main power source	Mainly thermal power generation (partly renewable energy)	Renewable energy
		Firming power	Mainly thermal power generation	Mainly batteries
Time fluctuation	Supply electricity in the event of a sudden surge in demand or a shortage of supply in a very short period of time	Power generation company	Thermal Renewable energy	Base load
		Trans mission	Firming Power	黄
Power shutdown	Adjustment between supply and demand in the event of an unexpected power outage	Customer		Demand

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### Role of Gas-fired power: Support for captive power generation

Captive power generation represents a significant part of power generation generally as well as a significant growth factor for the power generation industry. Captive power generation provides companies and industries with reliable, costeffective, and efficient power, giving them control over their energy supply. From an energy transition standpoint, captive power generation represents both a challenge and an opportunity.

Captive power generation is often powered by carbon intensive sources, such as coal and gas. At the same time, it is also a potential solution to decarbonize when the grid remains highly carbon intensive, with renewable energy capacities. This highlights the importance of addressing the energy transition for captive power generation users.

Captive generation users are often industrial players, which may require power as well as heat generation. Heat generation is needed by many industries for process requirements, such as drying, calcination and chemical reactions. Heat is often required in a variety of temperatures and needs to be provided in precise quantities to ensure that processes run smoothly.

Fossil fuels, and notably natural gas, has several advantages over renewable energy sources to provide both power and heat, such as efficiency, cogeneration capacity, flexibility and stability of supply. While the use of renewable energy for heating will increase over time and become more affordable, captive power co-generation provides an alternative to more carbon intensive options in the meantime. To ensure the industry's transition, it is essential for financial institutions to assess the materiality of power and heat for each industry in reaching Net Zero.

#### Image for cogeneration system



#### Captive power generation in Indonesia

Self-generation accounts for approximately 20% of the total power generation capacity in Indonesia. Of this, about 60% is coal-fired power generation, making it a significant source of emissions.



Source: Asian Development Bank, "Captive Power Landscape Assessment for the Energy Transition in Indonesia – Final Report"

# Spotlight – Improvement of energy efficiency

Energy efficiency plays a crucial role in achieving net-zero emissions globally. It is one of the most cost-effective ways to enhance energy security, reduce energy costs, and decrease greenhouse gas emissions. Energy efficiency represents more than 35% of the emissions abatement needed by 2040, according to the IEA Sustainable Development Scenario. We welcome the agreement in COP28 and SMBC is working with International Business Council on Transforming Energy Demand whitepaper published in Jan 2024.

Supporting energy efficiency measures in the context of Transition Finance is challenging for financial institutions. By definition, clients implement energy efficiency measures in assets which are highly energy and carbon-intensive. Most of the time, these assets cannot reach Net Zero with energy efficiency measures alone. While energy efficiency is widely recognized as a suitable Use of Proceeds for green loans, it is closer to a transition asset when assessed in individual transactions.

SMBC recognizes the importance of energy efficiency to reach Net Zero. SMBC assesses the impact of energy efficiency measures to understand if it is material enough to support the client in its transition efforts, and thus label this as Transition Finance.

#### CO2 emissions and main mitigation measures

Of the reductions needed to achieve net zero, approximately 35% will come from efficiency improvements.



Source: IEA, "CO2 emissions and main mitigation measures in the Stated Policies Scenario and the Net Zero Scenario, 2020-2050'' License: CC BY 4.0

#### Global primary energy intensity improvement, annual change



Achieving the net zero scenario requires doubling energy efficiency by 2030.

Source: IEA, "Global primary energy intensity improvement, annual change in the Net Zero Scenario, 2000-2030" License: CC BY 4.0

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# Spotlight – Challenges in labeling gas-fired power projects

Since the start of implementing the Playbook, SMBC has received a significant number of requests related to firming power across all regions. Although some countries and regions explicitly recognize the role of fossil fuel based firming power in the energy transition, this is not the case in all regions. For example, the European Union (EU) has developed strict standards for gas fired power plants to be called sustainable.

The EU Taxonomy details those standards, which include carbon intensity requirements and/or sunset dates, such as:

 Achieving 100g CO2e/kWh by 2035 on a LCA basis, or phase out by 2035

 Direct emissions lower than 270 CO2e/kWh of the output energy, or annual direct GHG emissions of the activity do not exceed an average of 550kgCO2e/kW of the facility's capacity over 20 years (for permits up to 2030)

#### Challenging in labeling firming plants

EU standards effectively make it challenging for financial institutions to label a firming plant. By definition, firming plants have a lower output and higher carbon intensity (but lower GHG emissions) compared to baseload plants.

One such transaction involved a significant investment in battery storage covering needs across a European country. However, this transaction also involved gas fired power plants, to provide power to the batteries during periods of time where there is no sufficient power to charge the batteries, and until renewable energy is available at scale in the country.

As these plants' expected carbon intensity was above the thresholds above and are expected to be decommissioned later than the EU Taxonomy sunset date, we could not label this transaction as Transition Finance, despite its strong transition rationale.

#### **Example of Transition Eligible assets**

Extract from SMBC's Internal Taxonomy. Fossil fuel based firming power is only recognized as a transition asset in some regions

#### Japan

Asia

EU 27

- Combined cycle gas fired power generation
- Hydrogen co-firing gas, coal power generation At least 10% co-firing for gas and 20% co-firing for coal, limited to low emission hydrogen
- Ammonia co-firing gas, coal power generation At least 20% co-firing, limited to low emission ammonia
- Biomass co-firing gas, coal power generation
- Thermal power generation with CCS

#### Combined cycle gas fired power generation Only for peaking for some countries

- Hydrogen co-firing gas, coal power generation At least 10% co-firing for gas and 20% co-firing for coal, limited to low emission hydrogen with CCS
- Ammonia co-firing gas, coal power generation At least 20% co-firing, limited to low emission ammonia with CCS
- Biomass co-firing gas, coal power generation
- Thermal power generation with CCS
- Combined cycle gas fired power generation Countries Must be aligned with EU Taxonomy
  - Hydrogen co-firing gas power generation Must be aligned with EU Taxonomy
  - Ammonia co-firing gas power generation Must be aligned with EU Taxonomy
  - Biomass co-firing gas power generation Must be aligned with EU Taxonomy

# Appendix. Global trends in Transition Finance

### **Global trends in Transition Finance in public sector**

In 2023, Japan served as the chair of the G7 Hiroshima Summit, where the importance of Transition Finance was recognized for the first time by the G7.

Subsequently, discussions on Transition Finance unfolded in various countries, and 2023 saw progress in discussions related to transition plans, which are debated in conjunction with Transition Finance.

### G7

At the G7 Hiroshima Summit held in May 2023, the importance of Transition Finance was recognized for the first time at a G7 summit. The importance of Transition Finance was not only mentioned in the G7 Sapporo Climate, Energy, and Environment Ministers' Meeting Communiqué, but also incorporated into the G7 Finance Ministers and Central Bank Governors' Statement and the G7 Hiroshima Summit Outcome Document.

#### 2023 G7 Hiroshima Leaders' Communiqué

21. "We also highlight that transition finance, in line with keeping a limit of 1.5°C temperature rise within reach, avoiding carbon lock-ins and based on effective emissions reduction, has a significant role in advancing the decarbonization of the economy as a whole"

#### Governments

Discussions on Transition Finance have progressed in various jurisdictions, including the European Commission, the United States, and Singapore, since 2023. While definitions and expectations of Transition Finance still vary, the overall importance of Transition Finance for the decarbonization of the real economy is being emphasized.

Jurisdiction	Publication date	Title	Description
European Commission	June 2023	EU Sustainable finance package 2023 EU Taxonomy	The package published includes the EU Taxonomy Delegated Act, improvements to the usability of the EU Taxonomy, regulations for ESG rating agencies, and recommendations that provide guidance and practical examples for Transition Finance.
United States	September 2023	Principles for Net-Zero Financing and Investment	The U.S. Treasury Department has compiled voluntary recommendations for financial institutions, which are formulated with reference to frameworks for transition plans presented by GFANZ (the Glasgow Financial Alliance for Net Zero).
United Kingdom	October 2023	TPT Disclosure Framework	The Transition Plan Taskforce, established by the UK Treasury, has compiled a framework for the disclosure elements of transition plans for companies/financial institutions.
Singapore (:	December 2023	Singapore- Asia Taxonomy for Sustainable Finance 2023 Edition	Sets sector-specific thresholds.

## **Global trends in Transition Finance in private sector**

Parallel to the trends in the G7 and various countries, discussions related to Transition Finance are also being actively conducted in the private sector.

SMBC Group is participating in discussions on Transition Finance in international initiatives such as GFANZ, NZBA (Net-Zero Banking Alliance), the Asia Transition Finance Study Group, PCAF (Partnership for Carbon Accounting Financials), and IIF (Institute of International Finance), contributing to promoting Transition Finance.

Furthermore, SMBC was the first bank in Japan to develop and disclose a Transition Finance Framework, and in recent years, several financial institutions have undertaken similar initiatives. As encouraged by the NZBA's Transition Finance Guide, we hope that more financial institutions will develop their own Transition Finance Frameworks in the future.

### GFANZ/NZBA

In 2022, the NZBA issued the Transition Finance Guide. This report advocates for financial institutions to define and determine methods for Transition Finance to promote its implementation. Following this report, our company developed and disclosed the Transition Finance Playbook in 2023.



NZBA "Transition Finance Guide", 2022



GFANZ "Defining Transition Finance and Considerations for Decarbonization Contribution Methodologies", 2023 Additionally, in 2023, GFANZ proposed a draft methodology for measuring the contribution to decarbonization of different financing strategies. In 2023, GFANZ also issued a report advocating for a reconsideration of the indicators necessary to properly assess Transition Finance. NZBA member financial institutions are setting and measuring targets for financed emissions (FE), which correspond to Scope 3 emissions within financial institutions. This report, as will be discussed later, suggests that FE can be a barrier to promoting Transition Finance and advocates for the evaluation of Transition Finance using multiple indicators, including forward-looking metrics.

### Banks

In conjunction with such GFANZ and NZBA initiatives, the number of financial institutions that have established and disclosed Transition Finance frameworks is increasing. Not only European financial institutions like Standard Chartered Bank and Barclays but also institutions from other regions such as DBS in Singapore, Maybank in Malaysia, and First Abu Dhabi Bank in the Middle East have disclosed their frameworks.

Furthermore, the Rocky Mountain Institute, in collaboration with financial institutions including SMBC, launched the Transition Finance Hub in 2024, publishing guidance and reports to assist many financial institutions in engaging with Transition Finance

## Statements at G7 Hiroshima Summit 2023

At the G7 Hiroshima Summit held in May 2023, the importance of Transition Finance was recognized for the first time. The importance of Transition Finance was not only mentioned in the G7 Sapporo Climate, Energy, and Environment Ministers' Meeting Communiqué, but also incorporated into the G7 Finance Ministers and Central Bank Governors' Statement and the G7 Hiroshima Summit Outcome Document.

#### 2023 G7 Hiroshima Leaders' Communiqué

21. "We also highlight that transition finance, in line with keeping a limit of 1.5°C temperature rise within reach, avoiding carbon lock-ins and based on effective emissions reduction, has a significant role in advancing the decarbonization of the economy as a whole"

#### 2023 G7 Finance Ministers and Central Bank Governors Meeting Communiqué

15." We remain committed to supporting the implementation and monitoring of the G20 Sustainable Finance Roadmap, including the transition finance framework. Transition finance, in line with keeping a limit of 1.5°C temperature rise within reach, avoiding carbon lock-ins and based on effective emissions reduction, has a significant role in advancing the decarbonization of the economy as a whole. We encourage the public and private sectors to enhance availability and credibility of science-based, transition-related information, including through transition plans supported by credible pathways, which would help promote investment that is aligned with an orderly net-zero transition by enabling assessment of the progress on transition in a forward-looking manner and accounting for the trajectory of financed emissions that are associated with real economy emission reductions."

#### 2023 G7 Climate, Energy and Environment Ministers' Communiqué

55. We will continue to scale up sustainable finance and redouble our efforts to make private and public, domestic and international finance flows consistent with a pathway towards low GHG emissions and climate resilient development in line with Article 2.1.c of the Paris Agreement. We highlight the need for corporates to implement their net-zero transition, in line with the temperature goal of the Paris Agreement, based on credible corporate climate transition plans. We recognize that transition finance can support such efforts so long as it is in line with keeping a limit of 1.5°C temperature rise within reach, avoids carbon lock-ins, and is based on effective emissions reduction, as described in such documents as the OECD Guidance on Transition Finance and other global best practices. In addition, we recognize the need to significantly increase the mobilization of private finance through strong enabling environments, sustainable finance policies and regulations, and innovative financial frameworks and tools or public-private cooperation, such as blended finance. We welcome and encourage the development of tools, such as sustainable finance taxonomies, in order to enable investment decisions to align with climate change objectives, including work to develop such taxonomies by some G7 members.

### Participation to events in fiscal year 2023

Since transition finance is still in its early stages, the SMBC Group explained the significance of transition finance and the role of the Transition Finance Playbook through participation in events. In fiscal year 2023, we have participated in more than 20 external events.

	Participated Events			
April 2023	• IIF Sustainable Finance Summit in Tokyo			
May 2023	UNEP FI Asia Regional Roundtable Asia Pacific 2023			
June 2023	<ul> <li>Ecosperity 2023</li> <li>Asia Transition Finance Study Group</li> </ul>			
August 2023	<ul> <li>Sustainable Energy Technology Asia 2023</li> </ul>			
October 2023	<ul> <li>JC3 Journey to Zero Conference</li> <li>ING Sustainable Finance Event</li> </ul>			
November 2023	<ul> <li>Yokohama City Global Warming Countermeasures Business Council Training Session</li> <li>UNEP FI Tokyo Conference 20th Anniversary Symposium</li> </ul>			
December 2023	Multiple Events at COP28			
February 2024	Moral Money Summit Japan			
March 2024	<ul> <li>Financial Services Agency Sustainable Finance Expert Panel</li> <li>Asia GX Consortium</li> <li>AIGCC Japan Working Group</li> </ul>			

### Disclaimer

This document contains "forward-looking statements" (as defined in the U.S. Private Securities Litigation Reform Act of 1995), regarding the intent, belief or current expectations of us and our managements with respect to our future financial condition and results of operations. In many cases but not all, these statements contain words such as "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "probability," "risk," "project," "should," "seek," "target," "will" and similar expressions. Such forward-looking statements are not guarantees of future performance and involve risks and uncertainties, and actual results may differ from those expressed in or implied by such forward-looking statements contained or deemed to be contained herein. The risks and uncertainties which may affect future performance include: deterioration of Japanese and global economic conditions and financial markets; declines in the value of our securities portfolio; incurrence of significant credit-related costs; our ability to successfully implement our business strategy through our subsidiaries, affiliates and alliance partners; and exposure to new risks as we expand the scope of our business. Given these and other risks and uncertainties, you should not place undue reliance on forward-looking statements. Please refer to our most recent disclosure documents such as our annual report on Form 20-F and other documents submitted to the U.S. Securities and Exchange Commission, as well as our earnings press releases, for a more detailed description of the risks and uncertainties that may affect our financial conditions and our goerating results, and investors' decisions.

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