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Master's Thesis

日本轉型金融之分配政治

The Distributive Politics of Transition Finance in Japan

小林千乃

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本論文係小林千乃(R10341062)在國立臺灣大學國家發展研究所完成之碩士學位論文，於民國114年1月6日承下列考試委員審查通過及口試及格，特此證明

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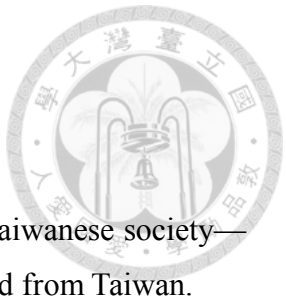

I aspire to keep growing as a person who can contribute to Taiwanese society—and beyond—in return for the kindness and generosity I have received from Taiwan.

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Abstract

Transition finance supports the decarbonization of hard-to-abate sectors, such as heavy industries, which have historically been difficult to integrate into environmental finance frameworks. In 2023, Japan announced the issuance of 20 trillion yen (approximately USD 130 billion) in transition bonds over the next decade, becoming the first country to adopt transition bonds as sovereign debt instruments. However, because the global sovereign market still favors green bonds due to their lower greenwashing risks, Japan's transition finance approach has been subject to international criticism for its potential greenwashing concerns. Despite the growth of Japan's green bond market since 2017, why did the government prioritize transition bonds over green bonds as its primary policy, fully aware of the risk of international criticism for potential greenwashing?

This thesis aims to understand the adoption process of transition finance in Japan from 2021 till the issuance of sovereign transition bonds. Utilizing political economy, eco-developmental state, and green economic diplomacy theories, this study categorizes governmental agencies and private sector actors into pro-developmental and pro-environmental groups, arguing that distributive politics between these actors shaped its policy outcome. To address this argument, the thesis formulates three hypotheses: (1) an inter-ministerial compromise to competition fostered by political leadership, (2) the strong influence of industrial organizations, and (3) strategic foreign policy toward Asia.

The study employs the process tracing method, drawing on secondary data from 2017 to 2024 and semi-structured interviews. By examining the Japanese case, this research contributes to a broader understanding of the motivations and processes driving transition finance markets, which are gradually gaining momentum, particularly in Asia. It also provides new insights into political economy, eco-developmental state theory, and green economic diplomacy.

Key Words

Transition Finance, Transition Bonds, Political Economy, Eco-developmental State, Green Economic Diplomacy, Process Tracing Method, Policy Decision-Making Process, Asian Green Transformation

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摘要

轉型金融 (transition finance) 為所謂難以減排產業 (hard-to-abate sector)的綠色轉型進行金融支援的一種環境政策工具。其難以減排產業通常是指重工業，卻他們因其巨大排放量，曾經難以列入環境金融政策的對象。在 2023 年，日本政府決定發行 20 兆日幣（約 1300 億美元）的轉型金融國債，成為了世界首創發行轉型金融為國債的國家。不過, 相比其他環境金融工具, 綠色債券因為其漂綠之風險較低, 世界債券市場仍更青睞綠色債券, 而日本的轉型金融因其漂綠之可能性, 受到國際上的批評與擔憂。再加上，日本綠色債券市場自 2017 年以來不斷的發展。因此，本研究主要問題在於: 日本政府雖然也得知對轉型金融的批評與擔憂, 為何還選擇轉型金融而不是綠色債券為國債，作為國家主要政策之一?

本論文探討由 2021 年至轉型國債的發行，日本轉型金融的政策採納過程，借鑒政治經濟學 (political economy) 、Eco-發展型國家 (eco-developmental state) 和綠色經濟外交 (green economic diplomacy) 理論，建立論文架構。並且，試圖將國家與私人的行為者分為親發展行為者 (pro-developmental actors) 和親環境行為者 (pro-environmental actors), 預計得到兩者之分配政治塑造了以上政策結果。本文準備三個假設, 包括政府省廳間由政治領導力所促成的妥協與合作到競爭關係、產業組織的強大影響力、對亞洲的戰略性外交政策來檢驗其主張。本研究透過自 2017 年至 2024 年的二手資料及訪談資料，利用過程追蹤法 (process tracing method) 試圖回答其問題。本研究通過日本的案例, 試圖了解目前尤其在亞洲蓬勃發展之轉型金融市場之發展動機和過程。本研究也為政治經濟學、發展型國家和綠色經濟外交理論將提供新的視角。

關鍵詞

轉型金融、轉型債券、政治經濟學、發展型國家、綠色經濟外交、過程追蹤法、政策決策過程、亞洲綠色轉型

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Abbreviations

Abbreviation	Definition
AETI	Asia Energy Transition Initiative
AJIF	ASIA-Japan Investing for the Future Initiative
ASEAN	Association of South East Asian Nations
ATFSG	the Asia Transition Finance Study Group
AZEC	Asia Zero Emission Community
CPTPP	the Comprehensive and Progressive Agreement for Trans-Pacific Partnership
ESG	environmental, social, and governance
FOIP	the Free and Open Indo-Pacific Strategy
FSA	The Financial Services Agency, Japan（日本金融庁）
GFANZ	the Asian Development Bank, the Glasgow Financial Alliance for Net Zero
GHG	greenhouse gas
GSS+	Green, Social, Sustainability, and Sustainability-Linked
GX	Green Transformation
ICMA	International Capital Market Association
JBIC	the Japan Bank for International Cooperation（国際協力銀行）
JCI	The Japan Climate Initiative（気候変動イニシアティブ）
JCLP	The Japan Climate Leaders' Partnership（日本気候リーダーズ・パートナーシップ）
LDP	the Liberal Democratic Party, Japan（日本自民党）
METI	The Ministry of Economy, Trade, and Industry, Japan（日本経済産業省）
MOE	The Ministry of Environment, Japan（日本環境省）
MOF	The Ministry of Finance, Japan（日本財務省）
MOFA	The Ministry of Foreign Affairs, Japan（日本外務省）
MOU	Memorandum of Understanding
SLBs	Sustainability-linked bonds
TF	Transition Finance
TPP	the Trans-Pacific Partnership

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Chapter 1. Introduction

1.1 Motivation and Research Question

Since the Paris Agreement was reached in 2015, sustainable finance has become crucial in advancing climate change policies. Among these, green finance has been the most widely issued (Climate Bond Initiatives, 2023b), with abundant research (Kouwenberg & Zheng, 2023). This finance tool entails the application of green bonds/loans exclusively to environmental projects. To date, however, industries classified as "hard/er-to-abate," mainly heavy industrial sectors, have been the most significant contributors to greenhouse gas (GHG) emissions, while due to its determined usage, green finance has yet to assist in their effort for greening or emission reduction (Climate Bond Initiatives, 2020; Shrimali & Heller, 2021).[1] Nevertheless, there is concern that if these industries, which present the most significant challenge, are not transitioned, the world may only witness a superficial "green boom" (Donovan et al., 2020). Indeed, as of 2023 at COP28, it was noted that global GHG emissions had already deviated from the trajectory of the 1.5- or 2-degree targets (the United Nations Framework Convention on Climate Change, 2023).

Recently, a burgeoning market for transition finance has emerged, predominantly focusing on transition bonds and loans, particularly in countries such as Japan and China (Climate Bonds Initiative, 2023a). Although there is still no unified definition of transition finance, it is broadly perceived as aiming to decarbonize entities or economic

[1] The "hard-to-abate sector" denotes any sector for which the transition to net zero emissions is not nearly as straightforward due to a lack of appropriate technology or the prohibitive cost associated with its implementation (Odier, 2021). However, these sectors are still perceived as irreplaceable (Ehmann et al., 2022).

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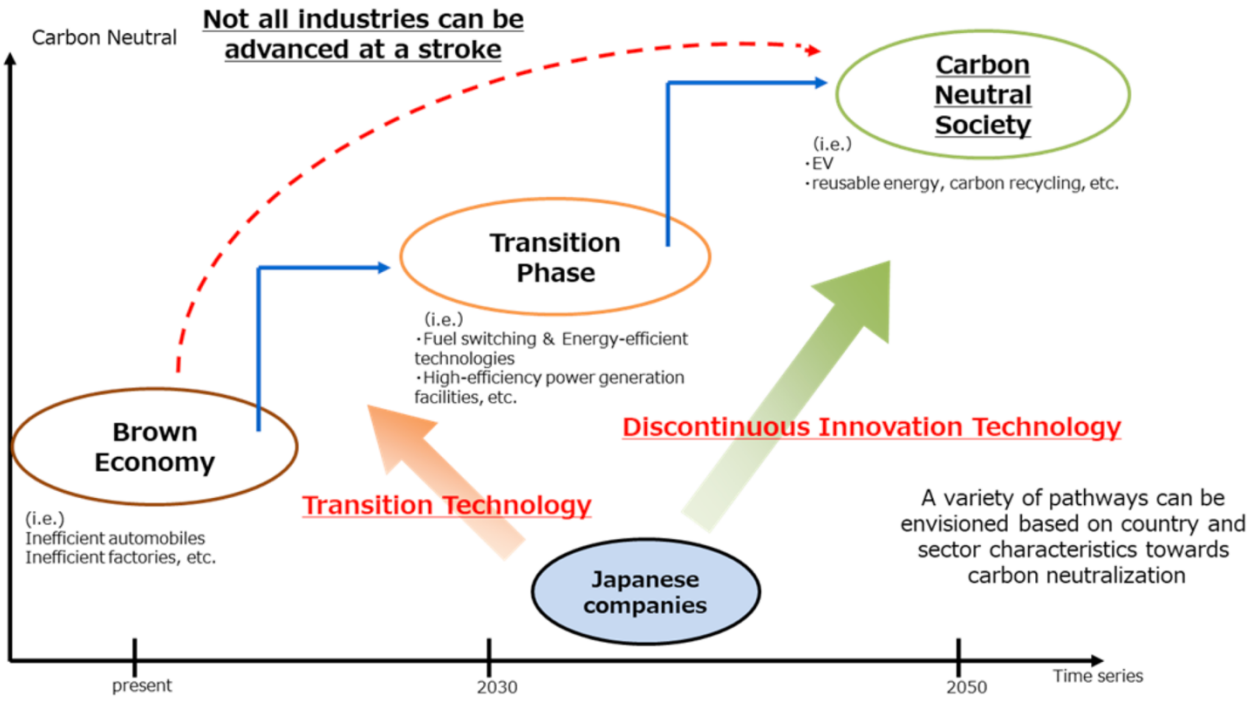
activities that (i) exhibit high levels of emissions, (ii) may presently lack economically feasible or credible low- or zero-emission alternatives across all relevant contexts, yet (iii) remain crucial for future socio-economic advancement (Organisation for Economic Co-operation and Development, 2022). In Japan, transition finance refers to the "financing means to promote long-term, strategic GHG emissions reduction initiatives that are taken by a company considering to tackle climate change for the achievement of a decarbonized society (Japan Ministry of Economy, Trade and Industry, 2024)." Briefly, it is the financial tools to help the decarbonization of hard-to-abate sectors, which are iron and steel, chemicals, electricity, gas, oil, paper and pulp, cement, and automobiles. The concept of transitions announced by the Japanese government is shown in Figure 1-1.

Figure 1-1. The Concept of Japan's Transition Finance



Source: Ministry of Economy, Trade and Industry (2024)

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In 2023, the Japanese government made the groundbreaking decision to issue transition bonds as their sovereign bonds, marking the first instance globally (Nikkei, 2023b). However, transition finance has faced criticism up to date due to ambiguities in its regulations and the concerns of "greenwashing" from its usage.[2] Therefore, green bonds have been the general mainstream of governmental sovereign bonds for net zero achievement. Indeed, among G7 countries, excluding the US and Japan, five nations already had issued green bonds as their sovereign bonds (Umekawa, 2023). The Japanese government, despite being aware of these criticisms, decided to proceed with issuing transition finance as sovereign bonds and explicitly outlined it as a primary policy under the 'GX (green transformation) Promotion Act,' which was enacted in May 2023 (Financial Services Agency et al., 2021; Japan Financial Services Agency et al., 2023; Ministry of Economy, Trade and Industry, 2023d, 2023e).

Why did the Japanese government deliberately designate transition finance as sovereign bonds despite being aware of international criticism? In the field of green bond development, the Japanese Ministry of the Environment (MOE) has issued and regularly updated green bond guidelines since 2017, indicating a well-organized development in green bonds (Ministry of the Environment, 2022a; Taghizadeh-Hesary et al., 2023). Despite this market, why did Japan opt for transition bonds as a crucial policy instead of green bonds, which aligns with international trends?

[2] Greenwashing refers to the act of an organization that intentionally creates or promotes an unfounded or misleading image of environmentalism in order to gain additional benefits (de Freitas Netto et al., 2020).

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1.2 Argument, Methodology, and Findings

Therefore, this thesis employs the process tracing method to address the question: "Why did the Japanese government prioritize transition finance over green finance, despite the high likelihood of facing international criticism, and incorporate it into major policies?" To answer this question, the analysis is conducted from three perspectives: political economy, eco-developmental state, and green economic diplomacy. Within the context of the political economy and the characteristics of the eco-developmental state, Japan's climate policy actors can be divided into pro-developmental and pro-environmental actors.

The Ministry of Economy, Trade, and Industry (METI) and Japan's largest business federation, Keidanren, are categorized as pro-developmental actors, while the Ministry of the Environment (MOE), environmental NGOs, and climate-conscious business initiatives are classified as pro-environmental actors. This thesis identifies a distributive conflict between these two groups and argues that relatively powerful businesses within the industrial sector and powerful governmental agencies form a pro-developmental coalition. Subsequently, the coalition influenced Japan's sustainable finance policy, resulting in the prioritization of transition finance over green finance as the central policy focus.

The thesis hypothesizes that the factors underpinning this outcome are inter-ministerial compromise and competition, the strong presence of business associations, and foreign policy toward Asia. It argues that the convergence of these factors led to the observed prioritization of transition finance. For the analysis, the study utilizes semi-structured interviews with 19 relevant stakeholders, alongside secondary data from governmental documents, meeting minutes, newspapers, industrial magazines, and NGO

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statements spanning the period from 2017 to 2024.

1.3 Contributions

This thesis aims to contribute to the field of sustainable finance research by analyzing the policy decision-making process of transition finance in Japan, which has been experiencing rapid policy development. Currently, research papers on transition finance predominantly focus on rudimentary analyses, such as defining and comparing transition finance, with limited attention to the policy process and the transition finance as its political outcome. Therefore, this thesis aims to analyze the policy aspects of transition finance, anticipating its increasing importance globally.

Additionally, this study seeks to advance the understanding of Japanese environmental finance policies, which have received limited attention in the current literature. Theoretical contributions of this thesis include the proposal of a new analytical framework within the narrative of political economy, exploring the potential of including not only corporations but also governmental agencies as key actors in the analysis. In the context of the eco-developmental state, the study observes the strategic processes through which the brown sector supports green initiatives. Additionally, in the realm of green economic diplomacy, the thesis addresses the often-overlooked interplay between domestic politics and international strategies.

1.4 Thesis Structure

Firstly, Chapter 2 reviews the existing literature on sustainable finance and Japan's

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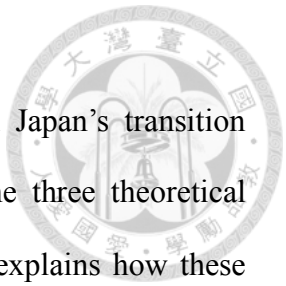

climate change policies, elucidating the rationale for focusing on Japan's transition finance as the research theme. Secondly, Chapter 3 introduces the three theoretical perspectives and analytical frameworks employed in this study. It explains how these frameworks are constructed and utilized while presenting the hypotheses, data sources, analytical methods, and anticipated outcomes. Thirdly, Chapter 4 summarizes the development of transition finance, which started with the establishment of the Transition Finance Taskforce, and the content of transition finance in Japan, mainly based on secondary data. Chapter 4 provides an overview of the transition finance in Japan.

Next, Chapter 5, building upon the dynamics summarized in Chapter 4, conducts an analysis of the domestic political economy in transition finance policy. This section is divided into 4 key periods: under the Suga administration with the Carbon Neutral declaration, the transition period from the Suga administration to the Kishida administration, from the development of the GX Basic Policy to the decision to adopt GX Bonds as a transition mechanism, and after the format of transition bonds was finalized. Within those phrases, this chapter also analyzes the formation of the pro-developmental coalition. At the end of this chapter, it examines the consistency between Hypotheses H1 and H2. While Chapter 5 focuses on the political-economic relationships of domestic actors, Chapter 6 analyzes the diplomatic strategy of transition finance based on secondary data and semi-structured interviews. Additionally, it summarizes Japanese diplomatic efforts in transition finance and verifies their consistency with hypothesis 3.

In the final chapter, Chapter 7 first verifies the coherence of the thesis's argument and the three hypotheses in the Discussion section. It also summarizes the theoretical and issue-based contributions and policy recommendations of this thesis. Finally, it mentions the limitations of this thesis and future research directions.

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Chapter 2. Literature Review

This chapter first reviews the relevant literature on sustainable finance and Japan's climate change policy, identifying the specific research gaps that this thesis aims to address in both fields. It then narrows the scope to sustainable finance in Japan, outlining the development of this research area. Throughout the chapter, the rationale for selecting Japan's transition finance as the primary research focus is explained.

2.1 Sustainable Finance

2.1.1 Classification of Sustainable Finance

According to the European Commission, sustainable finance is defined as the process of taking environmental, social, and governance (ESG) considerations into account when making investment decisions in the financial sector, leading to more long-term investments in sustainable economic activities and projects. While the literature has presented numerous classification methods for sustainable finance so far (Kouwenberg & Zheng, 2023; Kumar et al., 2022; Luo et al., 2022; Migliorelli, 2021; Organisation for Economic Co-operation and Development, 2020; Schoenmaker & Schramade, 2018; Singhania et al., 2023), no representative review literature incorporating transition finance. Migliorelli (2021) categorized sustainable finance into SDG finance, Green finance, and Climate finance. Subsequently, although recent research by Singhania et al. (2023) added carbon finance and social finance to this classification, transition finance was not included within these categories. This highlights an absence in transition finance research, indicating the potential contribution of this thesis to this field.

Furthermore, Singhania et al. (2023) conducted a quantitative analysis of 1269 relevant publications spanning the years 1984 to 2021 (Table 2-1). Their study

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substantially classified sustainable finance literature into four clusters: Climate finance, Carbon pricing, Green financing through green bonds, and Innovation financing. In a similar vein, Kumar et al. (2022) employed big data analytics to review 936 papers published between 1986 and 2020 in the field of sustainable finance, resulting in the categorization of research into seven clusters. Luo et al. (2022) performed a literature review utilizing bibliometric methods, covering the most extensive 3796 publications. Their analysis was segmented into 2000 to 2015 and 2016 to 2021 to identify the trends in the two periods. Table 2-1 illustrates the cluster classifications presented by each referenced study.

However, the aspect of transition finance and the decision-making process for sustainable finance policies, which are the focal object of this thesis, proves challenging to categorize within any of the literature above into a single cluster. In this regard, this study holds the potential to bring a fresh perspective to sustainable finance and contribute to interdisciplinary fields. Green finance, which is identified as an independent cluster in all reviewed literature, is considered to belong to the same classification as transition finance. Thus, the literature review in this thesis focuses on green finance and the governance of sustainable finance, which was highlighted by Kumar et al.'s literature.

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Table 2-1. Review literature and their classified clusters

Author	Singhania et al. (2023)	Luo et al. (2022)		Kumar et al.(2022)
Subjects	1269 papers	3796 papers		936 papers
Period	1984-2021	2000-2015	2016-2021	1986-2020
Cluster	1: Climate finance 2: Carbon pricing **3: Green financing through green bonds** 4: Innovation financing	1: Responsible fund 2: Carbon finance 3: Contributor states 4: Emission reductions 5: Impact investing	1: Responsible investment **2: Green bond** 3: Low-carbon transition 4: Vulnerable countries 5: Low-carbon investment 6: Business model 7: Financial development 8: Supply chain 9: Conventional investment dilemma 10: Sustainable financing 11: Environmental investment 12: green credit policy	1: Socially responsible investing 2: Climate financing **3: Green financing** 4: Impact investing 5: Carbon financing 6: Energy financing 7: Governance of sustainable financing and investing

Source: Compiled by the author

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2.1.2 GSS+ Finance

Green finance primarily involves the utilization of financial instruments such as green bonds and loans, which are designated for specific purposes outlined in the Use of Proceeds (International Capital Market Association, 2021a).[3] These financial products are collectively referred to as the GSSSB Family, encompassing Green, Social, Sustainability, and Sustainability-Linked Bonds (Lefournier, 2023). Currently, transition finance has been incorporated into the GSSSB, leading to the designation of GSS+ Bonds (Asian Development Bank, 2022; Climate Bonds Initiative, 2023c; International Capital Market Association, 2023; Kothari, 2023). Each finance within this framework adheres to specific principles issued by International Capital Market Association (ICMA) and standards issued by the Climate Bond Initiatives (CBI).

In this area, research on green bonds has been the most extensive. A broad spectrum of topics has been explored, such as green investors and corporate behavior (Heinkel et al., 2001), bond price dynamics (Zerbib, 2019), private participation (Taghizadeh-Hesary & Yoshino, 2019), comparisons between conventional bonds and the green bond market (Ehlers & Packer, 2017; Pham, 2016), and their co-movements (Reboredo, 2018). Additionally, research has addressed Green return (Pástor et al., 2022), Green premium (Ehlers & Packer, 2017), the actual environmental effects (ElBannan & Löffler, 2024; Flammer, 2021), and various other related aspects.

Most scholarly works in the field of transition finance have been identified as conducting comparisons with green finance (Donovan et al., 2020; Ehlers et al., 2020;

[3] The distinction between green bonds and green finance, and transition bonds and transition finance, lies in the relation between hypernym and hyponym. -finance is the hypernym of -bonds and -loans. Thus, "-finance" encompasses "-bonds" and "-loans" as a superior concept. Therefore, when referring to ~ finance, it includes both bonds and loans.

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Ehmann et al., 2022; Y. Liu et al., 2023; Sikka et al., 2023; Tandon, 2021). However, current research on transition finance remains limited to comparisons of the definitions and types. There is a notable absence of research exploring transition finance as a policy measure and investigating the rationale behind its adoption. To bridge this gap, urgent attention is required in conducting transition finance research within this field. Sikka et al. (2023) explained that green finance involves financing technologies with near-/zero emissions aligned with the Paris Agreement, while transition finance technologies are not currently aligned with it, stating it is not inherently "green." Ehmann et al. (2022) differentiate transition finance as financing for transitioning from brown to less brown (refer to Climate Bonds Initiative, 2020; Environmental Finance, 2019; Liu et al., 2023) or brown to green (refer to International Capital Market Association, 2020; The Global Financial Markets Association & Boston Consulting Group, 2020), highlighting its distinction from green finance, which typically denotes the expansion or improvement of already green enterprises.

Moreover, some scholars criticized green finance instead of transition. Donovan et al. (2020) critically argue that green finance is merely 'cutting the same pie into different slices,' warning that green bonds are creating a market for virtue without driving systemic changes. On the other hand, they mentioned that transition finance represents a significant redirection of existing capital flows, potentially impacting global carbon emissions over the next several decades profoundly (Donovan et al., 2020). Other literature mentioned that transition bonds emphasize their feature of general purpose, in contrast to green bonds, which are the use-of-proceeds instruments (Climate Bonds Initiative, 2020; Tandon, 2021). Others advocate for encouraging broader corporate participation by transition finance rather than maintaining the strictness of the use-of-proceeds model

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(GFMA & BCG, 2020; Tandon, 2021). It is because they recognize that transitioning from high- to low-carbon systems is either not considered or overlooked within the realm of green finance. Still, challenges such as insufficient disclosure of information, incomplete frameworks, and dispersed information (Liu et al., 2023) have led to a lag in the practice and related research of transition finance compared to green finance (Ehlers et al., 2020; Y. Liu et al., 2023). Table 2-2 provides a simplified comparison of the differences between green finance and transition finance, categorized by their purpose and financing subjects, based on the aforementioned content.

Table 2-2. Differences Between Green Finance and Transition Finance

	Green finance	**Transition finance**
Purpose	- Green to more green	- Brown to less brown or green
subjects	- Individual project-based - Only be used for green projects, not for the hard-to-abate sector. - Financing technologies with near-/zero emissions already aligned with the Paris Agreement.	- More entity-based - Be used for any industry, including the hard-to-abate sector. - Financing technologies yet aligned with the Paris Agreement.

Source: Compiled by the author

As for the field of social bonds, even though it still needs to be explored in current research, there have been notable contributions, such as the legal analysis of social bonds

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(Lenzi, 2021), investigations into social premiums (Torricelli & Pellati, 2023), and studies focusing on gender (González-Ruiz et al., 2023). Despite the limited body of research, the significance of the social bond has gained heightened attention in the aftermath of the COVID-19 pandemic (Peeters et al., 2020).

Sustainability bonds represent a financial method of investing in projects that combine both green and social elements. Sustainability bonds constitute a significant component as the second-largest element within the GSS+ label (Kothari, 2023). Kumar (2022) conducted a comparative study between sustainability bonds and traditional bonds, yet research in this field remains relatively limited.

The last member of the GSS+ family, Sustainability-linked bonds (SLBs) are an essential precursor of transition bonds. Transition bonds are considered to be located between green bonds and SLBs (Spectra, 2023) or both (ICMA, 2021; Kothari, 2023), indicating that SLBs hold substantial reference importance as high as green bond research. Sikka et al. (2023) elucidated the distinction between SLBs and transition bonds, highlighting that SLBs are utilized for company (entity) level transitions, whereas transition bonds can be used at both entity and activity levels. Despite the research conducted by Vulturius et al.（2022) on the impact of SLBs, this field still lacks sufficient comprehensive studies.

2.1.3 Sustainable Finance Policy

Regarding sustainable finance policy, Bhandary et al. (2021) analyzed climate-related financial policies of various countries based on mobilization effectiveness, economic efficiency, environmental integrity, and equity. D'Orazio (2021) revealed that

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financial policies addressing the pandemic within the G20 do not adequately confront the physical and transition risks related to climate change, advocating for stronger international cooperation.

Furthermore, this field exhibits a notable abundance of case studies, with particular prominence given to research on China's green bond policies (de Deus et al., 2022; Saravade et al., 2023; Shao & Huang, 2023; Zhang, 2022). The green bond policy implemented by China's financial market regulatory authorities, combined with the characteristics of its financial system (de Deus et al., 2022), has been an effective means of increasing green bond issuance (Saravade et al., 2023). Presently, Shao & Huang (2023) argue that the Chinese green bond policy is now more focused on attracting private investment and financing, moving from top-down intervention to market-based with enhanced private sector engagement and interaction.

Throughout the studies mentioned above, although there have been various policy studies on green bonds, more research on comparative studies on new-coming financial policies, the political institutions' influence on the adoption, and climate finance policy design still need to be investigated (Bhandary et al., 2021).

2.1.4 Why Transition Finance and Why Japan?

As evidenced by the literature review on GSS+ finance and sustainable finance policies, it is clear that research on transition finance within this field remains inadequate, with limited case studies on the policy formation of transition finance. Therefore, this thesis aims to fill this research gap by drawing on examples from Japan's transition finance.

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Three primary reasons justify selecting Japan as the focus of this study. Firstly, Japan has the highest amount of transition bond issuances as of 2022. According to a report by the Climate Bonds Initiative, Japan's transition bonds issuance in 2022 amounted to $1.9 billion USD, making it the highest among the countries (Climate Bonds Initiative, 2023a).

Secondly, Japan's transition finance policy is considered among the most advanced. Currently, countries such as Japan, China, Malaysia, Singapore, Canada, Australia, Russia, and the European Union have introduced policies or guidelines related to transition bonds (Climate Bonds Initiative, 2023a; Sikka et al., 2023; Tandon, 2021). However, Japan and China are the only countries clearly mentioned to have policies actively contributing to the momentum of the transition bonds market, as observed from the issuance amounts (Climate Bonds Initiative, 2023a, 2023b).

Thirdly, while both Japan and China exhibit notable policy support for transition finance above, Japan stands out as the only country that has decided to issue transition finance as government sovereign bonds. In February 2022, Japan decided to issue approximately 20 trillion yen of 'GX Economy Transition Bonds' over the next ten years (Cabinet Secretariat, 2023). This is the first transition sovereign bonds globally (Lester, 2023; Nikkei, 2023b), signifies the Japanese government's high expectations and importance attached to transition finance.

Given these three reasons and the scarcity of research on transition finance within the broader scope of sustainable finance, this thesis selects Japan as the subject of this case study. Japan is chosen due to its position as the leading market for transition bonds and its perceived advancement in providing policy support for transition finance.

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2.2 Climate Policy in Japan

The origin of climate policy in Japan can be traced back to the industrial pollution incidents accompanying the rapid economic growth of the 1970s. Preceding this period, Japan, characterized as a developmental state (cf. Johnson, 1982), prioritized international competitiveness and actively pursued industrial development policies centered around heavy chemical industries, with little consideration for environmental protection measures (Haddad & Harrell, 2020; Lee, 1998). However, these pollution incidents catalyzed a paradigm shift, prompting the government to prioritize environmental policies as well (Lee, 1998). Albeit with this, research on environmental policy gained momentum, particularly in the 2000s following the advent of the Kyoto Protocol. This thesis conducts a literature review pertinent to Japan's environmental policy, bureaucratic politics, relations with industrial associations, climate change diplomacy, and sustainable finance.

2.2.1 Industries Initiatives on Climate Policy

Environmental policy typically involves voluntary approaches conducted within autonomous frameworks and legislative approaches led by governments (Kameyama, 2021). Among these voluntary approaches, Japan stands out as one of the earliest practitioners (Welch & Hibiki, 2002). In 1996, prior to the Kyoto Protocol, the Keidanren (Japan Business Federation)[4] called upon industry associations to develop voluntary

[4] The Keidanren is the most influential industrial organization in Japan, serving as a spokesperson for the opinions of industry associations to the government (Satoh, 2017). Representative industry organizations and major corporations belong to the Keidanren.

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action plans for each industry (Keidanren, 1997; Wakabayashi & Arimura, 2016). Subsequently, in 1997, Keidanren announced an Environmental Voluntary Action Plan aimed at reducing CO2 emissions across the entire Japanese industry to 0% or below the 1990 level by the year 2020 (Keidanren, 1997). This initiative was distinctive to Japan, as it established individual targets for each sector, encouraging maximum efforts while leveraging the autonomy of the industrial sector (Arimura et al., 2019; Iwama, 2013). Approximately 82.9% of targeted industries were covered by this plan, representing around 80% of greenhouse gas emissions from domestic industrial and energy conversion sectors (Voluntary Action Plan Third-party Evaluation Committee, 2014; Wakabayashi, 2013a).

The cohesive strength of the Japanese industrial sector, pivotal for the efficacy of voluntary initiatives, is embodied in the hierarchical structure of industry associations, with the Keidanren at its apex, followed by industry associations and individual companies (Satoh, 2017). Furthermore, industry associations had abilities to reduce transaction costs for both the government and the industry sector (Wakabayashi, 2013a). As a result of these efforts, their voluntary action plans gradually became integrated with the government's climate change policies, prompting the government to instruct relevant ministries to develop and review these plans in the subsequent year (Satoh, 2017). Moreover, analysis indicates that the Keidanren aimed to prevent or mitigate additional burdens, such as new taxes or emissions trading imposed by the government through compliance with their action plans (K. Tanaka, 2011; Wakabayashi, 2013b). Such intentions and actions by the Keidanren have historically influenced Japan's climate change policies.

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2.2.2 Inter-ministerial Conflicts and Industries Opposition

Within government agencies, there has historically been a divergence in opinions regarding environmental policies. This section organizes the inter-ministerial conflicts and industries' opposition as explicitly stated in the existing literature, using examples such as the Kyoto Protocol, energy policies, renewable energy policies, and the emission trade system (ETS).

During the ratification of the Kyoto Protocol in 1997, a coalition opposing the protocol was formed by the Keidanren, the METI, and influential figures within the Liberal Democratic Party. They opposed the stance of the Environmental Agency (now the Ministry of the Environment), which advocated for ratification (Tiberghien & Schreurs, 2007). Despite this opposition, it was ratified due to 4 reasons; which are the support of the Environment Agency, backed by the then prime minister's leadership, the significance of Kyoto as the host city, the formation of NGOs, and media discourse contributed to public opinion in favor of ratification (Hattori, 2000; Kameyama, 2021; Ohta, 2009; Tiberghien & Schreurs, 2007).

During that period, Prime Minister Hashimoto demonstrated political leadership by mediating inter-agency disputes, leading to the establishment of the Headquarters for Promotion of Measures Against Global Warming in 1997, with the Prime Minister serving as its chair (Hattori, 2000; Watanabe, 2011). This marked the first instance of a climate-issue-based headquarters being established within the cabinet, underscoring the increasing significance of climate policy. Subsequently, the 'Act on Promotion of Global Warming Countermeasures' was enacted in 1998 and revised in 2002.

However, intense lobbying efforts by the industry, such as Keidanren declaring

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opposition to the introduction of environmental taxes in 2003 (Keidanren, 2003), led to the exclusion of economically stringent measures, such as carbon taxes, from the legislation that the Ministry of the Environment (MOE) had advocated for (Tiberghien & Schreurs, 2007). In fact, after COP6 in 2000, Japan witnessed escalating policy disputes between the MOE and the Minister of Economy, Trade and Industry (METI) regarding the introduction of environmental taxes and emissions trading (Ohta, 2011). This meant that the METI increasingly opposed nearly all emission reduction policies, reflecting the concerns of energy-intensive industries (Kameyama, 2021). Satoh (2017) classified the relationship between Keidanren, the MOE, and the METI into three blocs, analyzing Japan's climate change policy network as a tripolar structure as a tug-of-war between the Keidanren and the MOE over the METI. He concluded that the policy preferences of the influential Keidanren bloc are more likely to ultimately be reflected in the governmental policy (Satoh, 2017).

Such inter-agency conflicts are particularly prominent in Japan's energy policy area. A fundamental characteristic of Japan's energy policy formulation is closed and heavily reliant on experts and vested interest groups (Ohta, 2020; Watanabe, 2021). This is because officials from the METI, the Agency for Natural Resources and Energy (ANRE), ruling party politicians, energy-intensive industries, and labor unions form an energy policy coalition prioritizing "energy security" (Ohta & Barrett, 2023). Consequently, energy and climate policies are devised and implemented by bureaucrats from mainly the METI and the ANRE with high independence from their political apparatus. Therefore, Japan has framed climate change as an economic and energy problem, and politicians are also unable to consider climate mitigation as a long-term strategy with a justice perspective (Kameyama, 2017). Moreover, the industry emphasizes technical and

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economic feasibility (Trencher et al., 2019; Trencher, Rinscheid, et al., 2020), consistently hindering enthusiasm for addressing climate change.

For instance, while the Ministry of Foreign Affairs (MOFA) and the MOE oppose the construction of coal-fired power plants both domestically and internationally, advocating instead for carbon pricing (Trencher et al., 2019), they lack legal and political authority to impede new projects (Trencher, Rinscheid, et al., 2020). Conversely, the METI, supported by industry, is enthusiastic about constructing coal-fired power plants and opposes directive and regulatory policies such as carbon pricing. Therefore, to enhance persuasiveness in political debates with the MOE, the METI maintains and leverages its close ties with the industries (Trencher et al., 2019; Trencher, Rinscheid et al., 2020).

This close relationship with the business sector is referred to as the "Iron Triangle," consisting of politicians from the Liberal Democratic Party (LDP), the METI, and Keidanren, has monopolized Japan's climate policies (Iguchi et al., 2015; Kameyama, 2021; Schreurs, 2003; Watanabe, 2011, 2021). This Iron Triangle prioritizes the feasibility of industry over ambitious climate policies during target setting, contributing to Japan's historical reluctance to ambitious climate policy initiatives (Nakazawa et al., 2023; Tomozawa, 2016; Trencher et al., 2019; Trencher, Rinscheid, et al., 2020).

From the aforementioned context, it can be understood that in Japan's long-term energy policy, renewable energy was only promoted within the confines, which did not undermine the centralized power supply system or vested interests (Moe, 2016). However, following the Fukushima Daiichi nuclear disaster in 2011, ruptures emerged among the dominant groups within the iron triangle previously bound by vested interests, compelling an energy transition (Kuramochi, 2015; Ohta, 2020; Watanabe, 2021). Consequently,

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efforts were made to strengthen renewable energy as one of the best sources for future energy security by leveraging diverse renewable energy sources (Zhu et al., 2020). Within the LDP, there are subcommittees such as the Trade and Industry Subcommittee (commonly known as the *Shōkō-zoku*), favoring technology-oriented long-term goals, and the Environmental Subcommittee (*kankyō-zoku*), supporting short-term, quantitative emission reduction targets, have held adversarial discussions (Watanabe, 2011).

As a result, renewable energy accounted for over 20% of electricity generation by 2020, gradually becoming mainstream (Ohta, 2020). However, the METI, the LDP's Shōkō-zoku, and the Keidanren did not actively support its promotion. Instead, they cooperated in amending and enacting a full-scale feed-in tariff system (FIT) led by the then-ruling Democratic Party in exchange for demanding their interests and the change of government (Watanabe, 2021).

Another prime example of environmental measures that have been a major target of criticism by METI and Keidanren is the Emissions Trading Scheme (ETS). In 2005, Japan introduced Japan's Voluntary Emissions Trading Scheme under the auspices of the MOE. Still, there was a divergence of opinions between the MOE and NGOs on one side, and the METI and Keidanren on the other, regarding the introduction of emission credits (Hirayu, 2007). While the MOE considered the cap and trade (C&T) system[5] as an effective policy tool and aimed for its implementation, the METI favored the voluntary action plan approach, citing difficulties in allocating emission permits, and acted to restrain C&T system's adoption (Hirayu, 2007). In alignment with this stance, Keidanren

[5] According to the EU explanation, the cap is "a limit set on the total amount of greenhouse gases that can be emitted by the installations and aircraft operators covered by the system (European Commission, 2024)." This cap amount is often reduced annually in line with their target.

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also issued a statement opposing the C&T system (Keidanren, 2007). Meanwhile, in 2008, the Tokyo Metropolitan Government introduced Japan's first C&T emissions trading system. Despite fierce opposition from Keidanren and other major industry associations, the consensus was built to introduce the ETS because it excluded Tokyo-based power plants and other entities from its scheme (Aoki, 2010). This exclusion effectively circumvented the agreement with the main opposing forces.

2.2.3 Non-Governmental Organization Engagement

Since the 2016 Paris Agreement, sub-/non-actors have actively participated in climate policies, such as Japanese companies and local governments, which have independently set emission targets and initiated the incorporation of renewable energy (Kameyama, 2021). Therefore, in the decision-making process of climate policy, where bureaucrats once held decisive power, there has been a gradual inclusion of a more diverse range of stakeholders (Kameyama, 2017).

The Japan Climate Leaders' Partnership (JCLP), established in 2009, has urged the Japanese government to double the proportion of renewable energy in the newly submitted NDC and set a goal to achieve a 50% ratio by 2030 (JCLP, 2019). The Japan Climate Initiative (JCI), a coalition supportive of ambitious climate action and natural energy, was established in 2018 and has also been criticizing the retrogressive of national climate policies and advocating for more ambitious targets (Trencher, Rinscheid, et al., 2020).

Although it was expected that Japan would have industry coalitions supporting renewable power beyond current government targets, potentially influencing systems

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supporting coal, these coalitions are often limited in influence due to the relatively small representation of heavy industries within them and their tendency to be small-scale in terms of budget and personnel (InfluenceMap, 2020; Trencher, Rinscheid, et al., 2020).

2.3 Locating from the Previous Studies

Based on the review of literature on Japan's voluntary approaches, the Kyoto Protocol, renewable/energy policies, and ETS, a common characteristic of Japan's climate change policies beyond these issues is the conflict between the MOE and the METI, as well as Keidanren and other industry union's reluctance to engage. However, there has been a notable change in this structure regarding sustainable finance. In January 2021, the MOE, the METI, and the Financial Services Agency (FSA) jointly held a study group on Transition Finance, followed by the collaborative release of the 'Climate Transition Finance Guidelines' by these three ministries in May 2021 (Financial Services Agency et al., 2021; Ministry of Economy, Trade and Industry, 2023a; Ministry of the Environment, 2017). Furthermore, Keidanren, in response to these guidelines, issued a statement expressing overall approval of their content, considering it reflective of the country's circumstances, and pledged strong support for its promotion (Keidanren, 2021a).

This collaborative effort between the METI and the MOE, along with Keidanren's proactive stance, represents a significant departure from the dynamics observed in other environmental policies. Therefore, the sustainable finance policy discussed herein signifies a crucial turning point in Japan's paradigm, making research on its background and factors highly significant.

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2.4 Sustainable Finance in Japan

Research on sustainable finance in Japan has been conducted from corporate social responsibility (CSR) and socially responsible investing (SRI) (Yatouji, 2012), the Japanese Stewardship Code (Otsuka, 2020), to Environmental, Social, and Governance (ESG) study and green bonds. Recently, the ESG and green bonds study has been the most abundant in Japanese sustainable finance.

In Japanese cases, ESG research encompasses engagement practices (Clark et al., 2015), ESG performance (Kiriu & Nozaki, 2020; Vuong & Suzuki, 2021), corporate financial performance and credit ratings (Fabozzi et al., 2022), ESG stock prices (Mitsuyama & Shimizutani, 2015), and the impact of ESG during the COVID-19 pandemic (L. Liu et al., 2023; Takahashi & Yamada, 2021).

Besides that, the green bonds studies in Japan cover various aspects. Such as defining green bonds (Higuchi & Miyagawa, 2016), comparing its standards (Katori, 2018; Kawabata, 2020; Tanaka D., 2020), examining incentive mechanisms (Tanaka M., 2019), factors influencing market expansion (Mori & Shimizu, 2019; Okazaki, 2021), comparing investor decision-making with vanilla bonds (Uddin et al., 2022), and assessing environmental impacts (Taghizadeh-Hesary et al., 2023; Tôyama, 2022). Additionally, there are studies on social bond impacts (kogawa, 2020; Tsukamoto & Nishimura, 2016), divestment (Trencher, Downie, et al., 2020), and sustainable finance education (Kaneko, 2021), reflecting a broad range of research topics.

Among them, Schumacher et al. (2020) highlighted that carbon-intensive companies in Japan's stock market are not aligned with the Paris Agreement's 2 degrees target. They pointed out a low implementation rate of mitigation policies for carbon-

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intensive companies compared to the Japanese government's ambitions for climate change (Schumacher et al., 2020). Although research targeting carbon-intensive companies exists, current literature primarily focuses on ESG and green bond studies, with limited attention to policy research. Therefore, this thesis aims to analyze the dynamics of Japan's climate change policies focusing on transition finance, a new area yet to be addressed in Japanese sustainable finance research.

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Chapter 3. Research Design

This chapter first outlines the core theoretical framework of this thesis by employing three theoretical perspectives: the Political Economy Framework, the Eco-Developmental State, and Green Economic Diplomacy. Secondly, It introduces the main argument derived from the theoretical framework and three hypotheses. This thesis adopts the Process Tracing Method to examine causal relationships between events and among hypotheses. Data was collected through secondary sources and semi-structured interviews with 19 key stakeholders.

3.1 Theory Framework

3.1.1 Political Economy Framework

Climate change policies have traditionally been approached as issues of collective action, placing much emphasis on addressing the free-rider problem (Aklin & Mildenberger, 2020; Hardin, 2015; Nordhaus, 2015; Ostrom, 2010; Weitzman, 2017). However, recently, research revealed the fragility of empirical evidence supporting this collective action theory model and advocated for the importance of distributive politics over the free-rider problem (Aklin & Mildenberger, 2020).

Aklin and Mildenberger (2020) argued that distributive conflicts over material interests between pro- and anti-climate reform interests lead to divisions that produce economic winners and losers, influencing policy decisions. Additionally, Colgan et al. (2021) explained distributive politics by categorizing two ideal-typical groups: holders of climate-vulnerable assets (CVAs) and holders of climate-forcing assets (CFAs). They explained that environmental policies have evolved as a result of CVAs and CFAs distributive conflicts (Colgan et al.2021).

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Colgan et al. (2021) provides three mechanisms to explain the power shift process: flipping, realignment, and strategic repositioning. Flipping refers to shifts from CFAs dominance to CVAs dominance and vice versa, with this change in power balance enabling realignment. This realignment allows actors to engage in strategic repositioning, which refers to actors' policy change based on their relative competitiveness with other companies (Colgan et al., 2021). Although they provided a model with a tangible mechanism, it primarily focuses on corporations, with no interpretation made for government agencies. This thesis is going to apply this concept of political economy to the distributive politics of Japanese ministries. Therefore, the theoretical contribution of this thesis aims to supplement the theory by applying this model not only to corporations but also to government agencies.

3.1.2 Japan as an Eco-developmental State

The rationale for addressing governmental agencies in this thesis lies in the characteristics originating from Japan's developmental state model. The developmental state, originating from Johnson (1982), has been commonly utilized in the analysis of economic growth in East Asian countries (Amsden, 1989; Evans, 1995; Haddad & Harrell, 2020; Meckling, 2018; Wade, 1990; Woo-Cumings, 2019). Among East Asian countries, Japan was the first to confront environmental problems caused by developmental-state-type policies, becoming a pioneer in environmental policy within the developmental state paradigm (Harrell, 2020). Haddad and Harrell (2020) introduced the concept of an "eco-developmental state" and stated that Japan is the typical example that balances economic development with environmental sustainability, integrating

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environmental issues into economic growth strategies.

Although there is debate regarding whether Japan continues to embody the characteristics of a developmental state, Tonami (2018) contends that Japan still exhibits such features. Tonami (2018) argued that the state in Japan still guides and oversees economic development, while a powerful bureaucracy and corporations mutually complement each other by directing and shaping policies to achieve developmental objectives. South Korea is also often explained within the context of the developmental state paradigm (see Amsden, 1989; Evans, 1995). Kalinowski (2021) argues that South Korea, despite its high GHG emissions, their active engagement in green technology investments and participation in international initiatives can be attributed to the strong linkage between the state and corporations, as well as the weak civil society, characteristics typically associated with developmental states. Threrfore, Kalinowski (2021) terms this configuration as the "neo-developmental state."

In this thesis the definition of the eco-developmental state focuses on the following features; 1) prioritizing economic growth as the primary goal of the state (Haddad & Harrell, 2020), 2) strong linkages between the state and corporations (Kalinowski, 2021), 3) high autonomy of bureaucrats (Johnson, 1982), and 4) an export-oriented industrial structure (Katada, 2022; Yeung, 2014). Especially in this thesis, the second characteristic (state and corporations' strong linkages) enables the application of governmental agencies to the political economy model, which originally targets corporations. Furthermore, Okimoto (1989) emphasizes the leadership role of the state in the power balance between the public and private sectors. At the same time, the study highlights the increasing influence of the private sector in Japan alongside economic growth. This perspective suggests the significant presence of industrial actors discussed in this thesis.

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3.1.3 Green Economic Diplomacy

In addition to the domestic political economy, this thesis also examines Japan's diplomatic strategy for sustainable finance. Regarding Japan's environmental diplomacy, Okano-Heijmans (2012) utilizes the concept of green economic diplomacy to analyze the objectives of Japan's diplomatic policy in railways, nuclear power, water, and next-generation automobile industries. Okano-Heijmans (2012) argues that Japan's diplomatic policy aims to contribute to national interests in both economic prosperity and political stability, with key drivers being the exploration of new markets overseas, resource security, and securing cooperative relationships with other countries (Okano-Heijmans, 2012).

The concept of economic diplomacy explains all policies to be located on a continuum between 'business-end' or 'power play-end' policies (Okano-Heijmans, 2012).[6] In this context, Okano-Heijmans (2012) concludes that the Japanese government refrains from (passive) "power play" almost entirely, prioritizing interests related to the domestic economy over broader strategic goals. In this regard, it can be observed that green economic diplomacy also inherits the aforementioned characteristics of the developmental state. Furthermore, Tonami (2018) references economic diplomacy as a component of the developmental states foreign policy, which aligns with the framework outlined in this thesis. Indeed, Okano-Heijmans (2012) also notes the lack of Japan's developmental state literature on its foreign policy. Although Okano-Heijmans (2012) has

[6] Okano-Heijmans (2012) explained that 'business-end' refers to cooperative efforts between the public and private sectors to achieve commercial objectives (Kopp, 2004) and 'power play-end,' refers to actions and negotiations that affect economic relations to achieve political goals (Baldwin, 1985).

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mentioned domestic politics, it primarily focuses on their diplomatic motivation, with limited analysis of the relationship between domestic politics and these objectives. Therefore, this thesis explores the relationship between green economic diplomacy and transition finance policies grounded in domestic politics, expecting to contribute theoretically to green economic diplomacy.

3.1.4 Building the Framework

Hence, the overarching framework of this thesis utilizes the concepts of the political economy model, features of the developmental state, and green economic diplomacy to address the question: "Why did Japan prioritize transition finance as the priority policy over green finance?"

Here, in this thesis, two concepts need to be built to prepare the framework. First, Japan's unique characteristics as a developmental state can divide actors into pro-developmental and pro-environmental actors. Second, the preferences of pro-developmental and pro-environmental actors are different. Regarding foreign policy, pro-developmental actors much prefer green economic diplomacy because of its characteristics inherited from the developmental state.

The political economy model proposed by Colgan et al. (2021) categorizes conflicting corporate entities as CVAs and CFAs. However, the focus here is on governmental agencies, specifically the Ministry of the Environment (MOE) and the Ministry of Economy, Trade and Industry (METI). As mentioned earlier, the MOE is considered a pro-environmental actor, supporting the introduction of carbon pricing and opposing the construction of coal-fired power plants. Conversely, the METI is regarded

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as a pro-developmental actor, exhibiting reluctance towards carbon pricing but preferring voluntary approaches and actively supporting the construction of coal-fired power plants.

Subsequently, this thesis employs the political economy model's mechanisms, which are flipping, realignment, and strategic repositioning, to determine whether shifts in power balance have occurred between governmental agencies. Additionally, in the private sector, Keidanren can be considered a pro-developmental actor, drawing from past research and documentation. However, it is assumed that even within Keidanren, distributive conflict exists among industries similar to the LDP. Thus, within Keidanren, both pro-developmental and pro-environmental actors are posited, with pro-developmental actors representing industries such as steel, electricity, and chemicals and pro-environmental actors representing industries such as retail and finance. This setup enables the observation of power balance shifts between these two factions.

Building upon these premises, it is assumed that pro-environmental actors prefer green finance with lower possibilities of greenwashing confined primarily to green projects. In contrast, pro-developmental actors favor transition finance, which is growth-oriented and can attract a broader range of actors. Additionally, it assumed that the pro-developmental coalition formed by pro-developmental actors took over the characteristics of green economic diplomacy as a foreign policy and comprehensively preferred transition finance.

In sum, the main argument of this thesis is that **"More powerful ministries and more powerful businesses formed a pro-developmental coalition to influence Japan's sustainable finance policy, resulting in the adoption of transition finance over the green."** Therefore, it is divided into two contexts: the domestic politics between pro-developmental and pro-environmental actors and their diplomatic strategy to address

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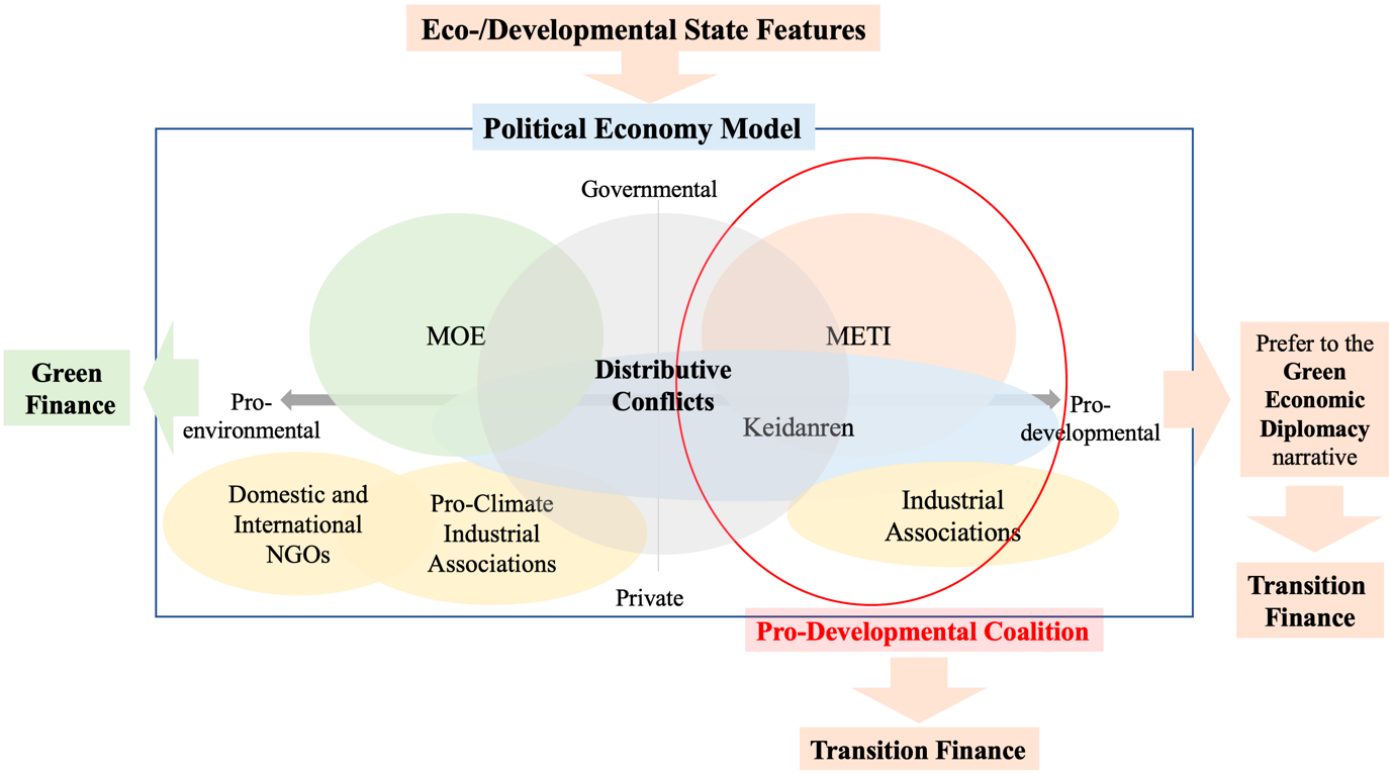
this argument. The theoretical framework of this thesis is visually represented in Figure 3-1.

Figure 3-1. The Theoretical Framework of This Thesis



Source: Compiled by the author

3.2 Hypotheses

To verify the aforementioned assumption, three hypotheses are formulated: Inter-ministries compromise and cooperation to competition, Strong presence of business association, and Foreign policy toward Asia.

H1: Inter-Ministries Compromise and Cooperation to Competition

As noted earlier, historical discord has characterized the relationship between the

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Ministry of the Environment (MOE) and the Ministry of Economy, Trade and Industry (METI) regarding environmental policies. However, while the MOE has solely conducted the promotion and implementation of green finance initiatives since 2017, a significant shift occurred in January 2021. It is that the MOE, the METI, and the Financial Services Agency (FSA) jointly established a Study Group on Transition Finance (Ministry of Economy, Trade and Industry, 2021; Ministry of the Environment, 2017). Furthermore, this collaborative effort culminated in the issuance of the 'Basic Guidelines of Climate Transition Finance' in May of the same year (Financial Services Agency et al., 2021).

Based on this background, two questions about the relationship between the MOE and METI arose. Firstly, why did the MOE, despite its conflicting environmental policy preferences with METI, collaborate with them to endorse transition finance, which is internationally criticized, rather than green finance? Secondly, while METI has not previously collaborated with the MOE on sustainable finance initiatives, why has it now arranged a framework for transition finance, although it is not green finance with them? To address these questions, Hypothesis 1 is proposed here:

H1: Although the MOE and the METI have established a cooperative relationship in sustainable finance, the METI still has more power than the MOE, resulting in the transition finance favored by the METI being chosen as the prior policy.

H2: Strong Presence of Business Association

The Keidanren Environmental Voluntary Action Plan, announced by Keidanren in 1997, achieved a 12.1% reduction in greenhouse gas (GHG) emissions compared to 1990 levels by the fiscal year 2012 (Keidanren, 2013). Consequently, the perception that this

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plan was successful is widespread in Japan's political and academic spheres (Iwama, 2013; Ministry of the Environment, 2014; Voluntary Action Plan Third-party Evaluation Committee, 2014). Even in the IPCC Fifth Assessment Report, Japan is recognized as an exceptional success story among voluntary initiatives (Intergovernmental Panel on Climate Change, 2014).

However, it is estimated that there is considerable disparity in the stringency of targets set by industry sectors (Yamaguchi, 2003), and there is a view that the targets set by the industry were originally achievable (Uezono, 2010). Regarding the target-setting process of this voluntary action plan, Satoh (2017) analyzed that the Keidanren and industry associations strengthened integration and prevented withdrawal by aligning targets with the most disadvantaged companies within, preventing the free-rider problem. Furthermore, the progress of the voluntary action plan is reviewed annually by deliberation councils of relevant ministries and agencies. Thereby, the plan was sustained by a mutual dependency between ministries seeking to efficiently implement policies and industry associations pusuring to maintain their function as political bodies (Satoh, 2017).

Based on the series of evaluations of voluntary action plans, although pro-environmental industry groups in Japan have been gaining influence, it can be inferred that Keidanren still maintains its influential role in environmental policies. Moreover, it can also be inferred that only transition finance was considered a nationwide acceptable policy within Keidanren due to the path dependency of the standard-setting method of aligning targets with the most disadvantaged companies at the time of the action plan[7]. Additionally, it is hypothesized that in the realm of sustainable finance, Keidanren or its affiliated industry groups collaborated with the METI to promote transition finance,

[7] See (Pierson, 2000, 2004) for details on path dependency.

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applicable not only to green industries but also to heavy industries, which are key members of Keidanren. Therefore, Hypothesis 2 is proposed here:

H2: Keidanren continues to uphold its robust influence and entrenched practices inherited from its own highly regarded environmental policies, thereby facilitating the garnering of support for transition finance within industries and the political sphere.

H3: Diplomatic Strategy toward Asia

Over the past two decades, Southeast Asia's total energy demand has expanded by more than 80%, and the Asian-Pacific region provides more than 83% of its energy supply from fossil fuels, accounting for about 51% of global emissions (International Energy Agency, 2022). Japan has long been referred to as an export-oriented country (Tonami, 2018; Wallace, 2019; Yoshimatsu, 2017), and in its economic diplomatic policies, it has pursued domestic economic revitalization, captured new markets, and the promotion of green aid and technology (Okano-Heijmans, 2012; Tonami, 2018), seeking to establish itself as a technological leader in Asia (Asuka-Zhang, 1999; Kim, 2009).

In the climate diplomatic role, Japan has historically played as a mediator between the progressive EU and the regressive US, as well as between advanced and developing countries (Gilson, 2023; Kawashima, 2000; Kuramochi, 2015; Ohta, 2009). However, in 2020, Prime Minister Suga declared the aspiration to lead the world's green industries alongside the 2050 carbon neutrality pledge, aiming to create a virtuous cycle of economy and environment (Cabinet Office of Japan, 2020). Additionally, Prime Minister Kishida, who succeeded PM Suga, proclaimed that "Japan will lead the transition to clean energy,

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particularly in Asia, and creating a decarbonized society" at COP26 in 2021 (Ministry of Foreign Affairs, 2021).

Currently, the EU is leading in the legislation and markets of green finance (Shimizu, 2020), while Asia still relies on fossil fuels for its energy composition, making the need for technological development related to the energy transition, which is the field of transition finance. Therefore, in Asia, although the definition of transition finance is ambiguous, it can be assumed that finance that can be adapted to many sectors will have an advantage over green finance, which has limited projects. Moreover, by promoting this transition finance in Asia, Japan can take the lead in shaping the rules associated with the greening of Asia and gain its leadership. Also, the METI and Keidanren, who can be recognized as belonging to pro-developmental actors, are preferred to the diplomatic narratives of green economic diplomacy, which emphasizes the economic development aspect. Thus, if the pro-developmental actors are more powerful than the pro-environmental actors, then the preferences of pro-developmental actors are reflected and emphasized in sustainable finance policy as well. Thus, Hypothesis 3 is proposed here:

H3: In order to assume a leadership role in the greening of Asia, METI and Keidanren exhibit a preference for transition finance, consequently leading the Japanese government to prioritize transition finance, which is deemed more suitable for Asia than the green finance advocated by the EU.

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3.3 Methodology and Data Sources

3.3.1 Process Tracing Method

This study employs the process tracing method to examine those hypotheses. Process tracing, a term first introduced by George (1979), is generally considered an effective method for conducting causal inference in qualitative research and case studies (George & Bennett, 2005; King et al., 2021; Mahoney, 2012; Van Evera, 2016). Moreover, it is particularly suited for evaluating theories of complex causal relationships encountered in many social sciences (Hall, 2003, 2006), making it suitable for this relatively new research area. Thus, this qualitative research can employ process tracing to infer causal mechanisms and facilitate "descriptive generalizations (King et al., 2021)" in a field that remains underexplored in the current literature.

Process tracing analysis is a technique used to diagnose whether a specific factor, X, is necessary or sufficient for the occurrence of a phenomenon, Y (Bennett, 2009; Hall, 2003; Mahoney, 2012). This technique employs several tests to establish strong inferences about causal mechanisms. As George and Bennett (2005) note, process tracing is particularly valuable in theory development and testing. Ideally, the analysis should identify all evidence for all causal chains at each step (Collier, 2011; Van Evera, 2016). If phenomena observed at each step are not adequately described, the analysis fails (Collier, 2011). Collier et al. (2010) refer to the insights or data that influence causal inference as "Causal-Process Observations (CPOs)."

Van Evera (2016) classified these empirical tests into four types: *Hoop tests, Smoking-gun tests, Doubly-decisive tests, and Straw-in-the-wind tests*. First, *Hoop tests* are used to exclude alternative hypotheses (Bennett, 2009) and confirm that a certain event or process does not exist. When the hypothesis that passes this test is considered

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necessary but not sufficient, acknowledging a relationship with subsequent events, but cannot prove causation. In contrast, when the hypothesis passed *Smoking-gun tests,* it can be diagnosed as not necessary but sufficient. This test verifies that the hypothesis is sufficient to cause subsequent events but not a necessary condition. Next, *Doubly-decisive tests* require hypotheses to be both necessary and sufficient to establish causality and eliminate all alternative hypotheses (Mahoney, 2012; Van Evera, 2016), while such cases are rare to find (Ricks & Liu, 2018). Finally, *Straw-in-the-wind tests* are used to suggest possible relationships between events; if the hypothesis passes the test, it can only diagnose whether it is necessary or sufficient (Collier, 2011). Passing this test only slightly weakens opposing hypotheses, but if multiple *Straw-in-the-wind tests* are passed, it can provide important positive evidence (Collier, 2011).[8]

Theoretically, Mahoney (2012) explains a method for inferring the causal relationship between X and Y indirectly by examining the relationship between M (Mechanism) that intervenes between X and Y when it is uncertain whether there is a causal relationship between X and Y. For example, when assuming that X is necessary for Y and seeking to prove it, it is necessary to verify through a smoking gun test that M is necessary for Y and that X is necessary for M; otherwise, the causal inference cannot be established. Similarly, when assuming that X is sufficient for Y, it is also necessary to verify through a smoking gun test that M is sufficient for Y and X is sufficient for M; otherwise, it cannot be established. Besides, even when Y is sufficient for M, if X is not necessary for M, X will be excluded through the hoop test. If M is sufficient for Y, and X is necessary for M, X will pass the hoop test and be recognized as necessary for Y but not

[8] In conducting process tracing, the causal inference table presented by Collier (2011) and the checklists organized by Ricks & Liu (2018) provides useful tips.

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a sufficient condition.

In summary, the process tracing method involves diagnosing whether the antecedent and subsequent processes are necessary and/or sufficient conditions and explaining them continuously until the verification of the final outcome (the prioritization of transition finance over green finance). However, in many social phenomena, the situation where one X directly causes Y is rare. Therefore, Skocpol (1979) mentioned the formation of a sufficient mechanism for the result when several causal conditions overlap in studying the causes of social revolution in France. Skocpol (1979) identified international pressures, dominant class political leverage, and peasant solidarity and autonomy as causal conditions (Mahoney, 2012), asserting that if any one of these had been missing, the social revolution would not have occurred.

Hence, in this thesis, these causal conditions are considered as hypotheses 1 through 3, and it is verified whether these hypotheses constitute the overall argument and whether they serve as sufficient mechanisms for the outcome. Therefore, in this thesis, in the first stage, which is in Chapters 5 and 6, the collected data is examined chronologically to determine whether it meets the necessary and/or sufficient conditions for each hypothesis. Next, Chapter 7 verifies whether these three hypotheses themselves are necessary and/or sufficient conditions for the argument of this thesis. Finally, it examines whether the argument satisfies the necessary and/or sufficient conditions for the outcome, which is the government has adopted transition finance rather than green finance as its main policy. Figure 3-2 is a schematic flow of the method in this paper, as shown above. In this way, this thesis analyzes the causality between each piece of evidence and the adoption of transition finance.

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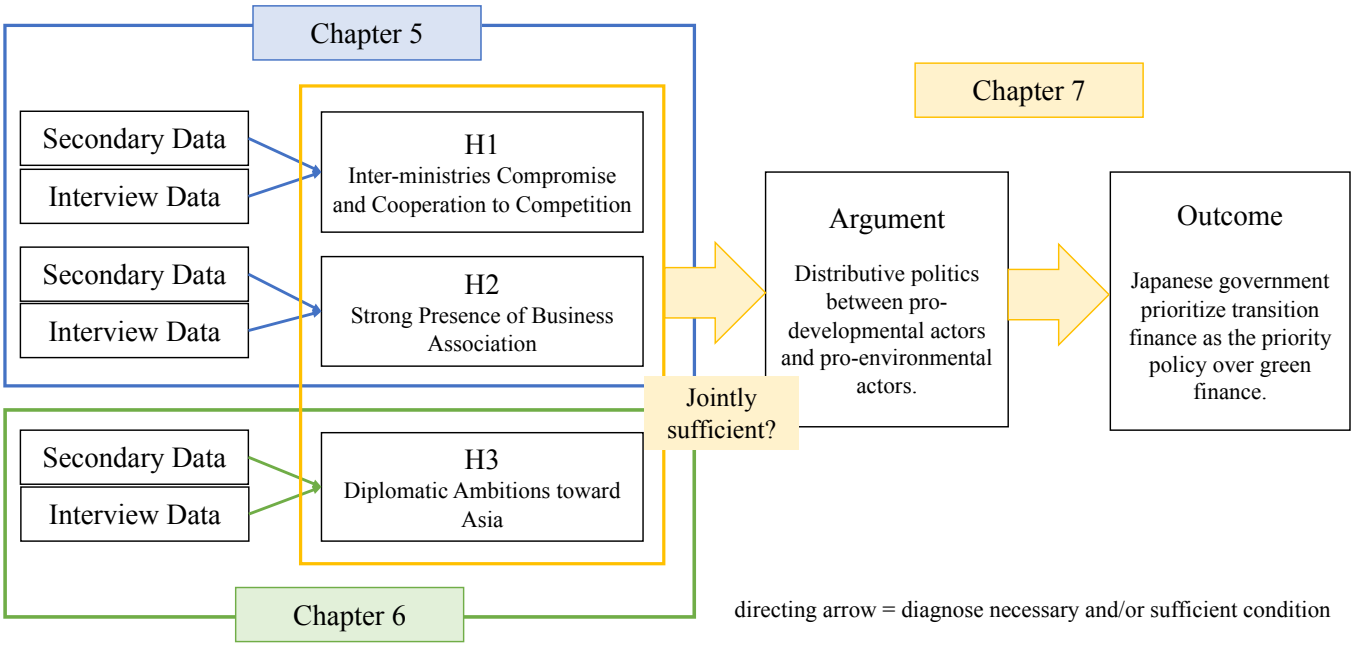
Figure 3-2. The Method to Diagnose the Causality Through the Chapters



Source: Compiled by the author

3.3.2 Data Sources

To validate these processes, this thesis is going to gather information through semi-structured interviews and secondary data. Regarding secondary data, various sources such as government documents and reports, minutes of ministerial council meetings (especially from the Cabinet, the METI, and the MOE), news articles, industry magazines and reports, and NGO statements and reports are utilized. Many of these data sources are available online, while industry magazines and reports are often restricted online access. Therefore, data that cannot be accessed online is collected at the National Diet Library of Japan. The period covered by the data ranges from March 2017, when the Green Bond Review Committee was established within the MOE, to February 2024, when the Japanese government issued Japan Climate Transition Sovereign Bonds. Within this

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timeframe, particular emphasis is placed on collecting data following the announcement of the Carbon Neutral Declaration in October 2020.

In addition to secondary data, semi-structured interviews were conducted to obtain information into the background of decision-making processes that are not accessible through publicly available documents. Semi-structured interviews are a widely utilized method of data collection in social sciences and medical quantitative studies, particularly in case studies (Kallio et al., 2016). This approach is especially effective for gaining deep insights into organizational dynamics and individual sentiments, as well as for analyzing unknown or emerging fields (Adams, 2015). Therefore, it is well-suited for this thesis, which investigates the shifts in power and sensitive issues surrounding emerging policies such as transition finance. Additionally, semi-structured interviews allow for tailoring questions to the background and expertise of the interviewees (Mason, 2017; Ruslin et al., 2022), enabling discoveries beyond the predefined scope of the research topic. This adaptability facilitates a comprehensive understanding of new policies such as the Green Transformation (GX).

In line with this concept, the interview guide was organized into sections focusing on perspectives from the government, industry, NGOs, and overarching themes, allowing for the selection of relevant questions customized to each interviewee's background. The content of the interviews aligns with the hypotheses of this thesis, and the specific questions used are detailed in Appendix 1. Since the interviews were conducted in Japanese, the Japanese version of the table of interview items is provided in Appendix 2. For detailed guidance on the flow of the semi-structured interview process, refer to Adams (2015); insights into the development of the interview guide can be found in the work of Kallio et al. (2016), while techniques for effective questioning are discussed in

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Leech (2002).

The interviewees primarily academics, but a diverse range of perspectives was sought. Participants included government officials and committee member of the METI and the MOE, as well as representatives from environmental NGOs, Keidanren, governmental research institutions, and United Nations Advisors. A total of 18 individuals were interviewed, most of interviewees hold multiple positions in various institutions, complicating simple classification. Broadly, the group consisted of three current government officials, three scholars currently in governmental committee, two representatives from industrial association, three climate policy scholars, and four representatives from NGO, two from research institute, and a banker. The interviews were conducted in two rounds: nine took place between August and December 2023, and twelve between September and October 2024. Notably three key participants were interviewed in both rounds. While interviews were generally conducted in person in Tokyo, online interviews were arranged when in-person meetings were not feasible. From the perspective of privacy protection, the interviewees' names are not disclosed; instead, the titles of the interviewees are presented in Table 3-1. In the subsequent sections, abbreviations listed in Table 3-1 will be used to clearly identify the source of each testimony. The interviewees' native language facilitated the obtaining of more in-depth and detailed information. Thus, this interview is conducted in Japanese.

A total of 21 interviews were conducted; however, after the data collection phase, a cross-check was performed against secondary data to ensure objectivity. Testimonies that were determined to significantly deviate from factual accuracy or to be predominantly emotionally charged criticisms were not incorporated into the analysis presented in Chapter 4 and beyond.

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Table 3-1. The Information List of Interviewees

		Information of Interviewees
1	2023.Aug.9	Former Chair Researcher at the National Institute for Environmental Studies. Professor at the University of Tokyo. (Abbrev. climate policy professor 1)
2	2023.Aug.9	Sustainable Finance Manager of the Institute for Global Environmental Strategies. (Abbrev. MOE research institute)
3	2023.Aug.10	A banker from the Bank of Japan. (Abbrev. Banker of Japan)
4	2023.Aug.10	Representative Director of the Research Institute for Environmental Finance. (Abbrev. EF research institute)
5	2023.Nov.7	the GX Implementation Council Member. Professor Emeritus of International Economics at the University of Tokyo. (Abbrev. GX committee member)
6	2023.Nov.7	Professor at Hitotsubashi University. researching Keidanren and Japanese industrial associations in climate policy. (Abbrev. climate policy professor 2)
7	2023.Nov.8	Representative Director of the Research Institute for Environmental Finance. (Abbrev. EF research institute)
8	2023.Nov.24	Member of the Transition Finance Taskforce and the Cabinet Office Global Warming Prevention Council. The Chair of the Transition Finance Roadmap Taskforce. (Abbrev. TF committee member)
9	2023.Dec.19	Member of GX League Study Committee, the Carbon Pricing Study Committee, and the Central Environment Council of the MOE. (Abbrev. MOE Committee member)
10	2024.Sep.30	Director of United Nations Environment Programme Finance Initiative. Founder of Japan Climate Initiative. (Abbrev. UNEPFI advisor)

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11	2024.Oct.2	Director of GX Acceleration Agency, Secretory General of Green Finance Network Japan. (Abbrev. GX institute official)
12	2024.Oct.2	Senior coordinator of Renewable Energy Institute (Abbrev. energy policy advocacy NGO)
13	2024.Oct.3	Program Director of Japan Center for a Sustainable Environment and Society (Abbrev. fund monitoring NGO)
14	2024.Oct.4	President of Japan Center for International Finance. (Abbrev. governmental financial center)
15	2024.Oct.4	Head of Keidanren Challenge Zero Promotion Office. (Abbrev. Keidanren staff 1)
16	2024.Oct.4	Member of Keidanren Environment＆Energy Policy Bureau. (Abbrev. Keidanren staff 2)
17	2024.Oct.7	Professor of Waseda University, former Secretariat of MOE. (Abbrev. climate policy professor 3)
18	2024.Oct.7	Director of Environment and Economy Division in MOE (Abbrev. MOE official)
19	2024.Oct.7	the GX Implementation Council Member. Professor Emeritus of International Economics at the University of Tokyo. (Abbrev. GX Council member)
20	2024.Oct.11	Representative Director of the Research Institute for Environmental Finance. (Abbrev. MOE Research Institute)
21	2024.Oct.29	Deputy Executive Director of Friend of Earth Japan (Abbrev. environmental INGO)

Source: Compiled by the author

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3.4 Expected Result

The anticipated results of this thesis first involve categorizing Japan's ministries, industry, and NGOs into pro-developmental and pro-environmental actors. Next, previously, the MOE (pro-environmental actors) and the METI (pro-developmental actors) had been in adversarial positions regarding environmental policies. However, with the Carbon Neutral Declaration and the Cabinet leadership, they transitioned into a cooperative relationship. Within this cooperative framework, competition between them arose regarding whether to prioritize green or transition finance.

Pro-developmental actors tend to favor transition finance, which supports heavy industries and embodies characteristics of green economic diplomacy in sustainable finance. In contrast, pro-environmental actors prefer green finance with less potential for greenwashing. In Japan, owing to the developmental state's narrative, the METI and influential business groups, such as Keidanren, still maintain strong ties and form a pro-developmental coalition. It is expected that they will influence Japan's sustainable finance policy, leading the government to incorporate transition finance as a primary policy rather than the green finance favored by pro-environmental actors. Consequently, it is anticipated that the argument of this thesis: "More powerful ministries and more powerful businesses formed a pro-developmental coalition to influence Japan's sustainable finance policy, resulting in the adoption of transition finance over the green," will be validated.

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Chapter 4. Emergence of Transition Finance in Japan

This chapter outlines the developmental trajectory and the characteristics of Japan's transition finance before delving into the analysis of distributive politics within Japan (Chapter 5) and strategies directed toward Asia (Chapter 6). It introduces the progression from the emergence of transition finance to the issuance of GX sovereign bonds.

4.1 Development of Transition Finance Taskforce

The Japanese government has emphasized the difficulty for all countries and industries, especially hard-to-abate sectors, to transition directly to green practices in achieving a decarbonized society. Therefore, they have underscored the necessity of supporting a steady transition toward decarbonization beyond green finance (International Capital Market Association, 2021b; Ministry of Economy, Trade and Industry, 2023f).[9] However, the hard-to-abate industries, which are essential to economic activity, require large-scale and long-term financing to reduce CO2 emissions gradually. Hence, the Japanese government views transition finance as a means to support their reliable decarbonization endeavors (Financial Services Agency et al., 2021)[10].

[9] The Industrial Science and Technology Policy and Environment Bureau of METI stated that *"Considering the situation of industries throughout the world, including emerging countries, Not all industries will take a leap to a decarbonized society"* and that *"To achieve carbon neutrality by 2050 and move forward steadily, we need to focus not only green but also transition"* at Webinar on Sustainable Finance held by International Capital Market Association (ICMA) in a March 9, 2021 (Ministry of Economy, Trade and Industry, 2021a).

[10] In the basic guideline on climate transition finance, transition finance refers the *"financing means to promote long-term, strategic GHG emissions reduction initiatives that are taken by a company considering to tackle climate change for the achievement of a decarbonized society"* (Financial

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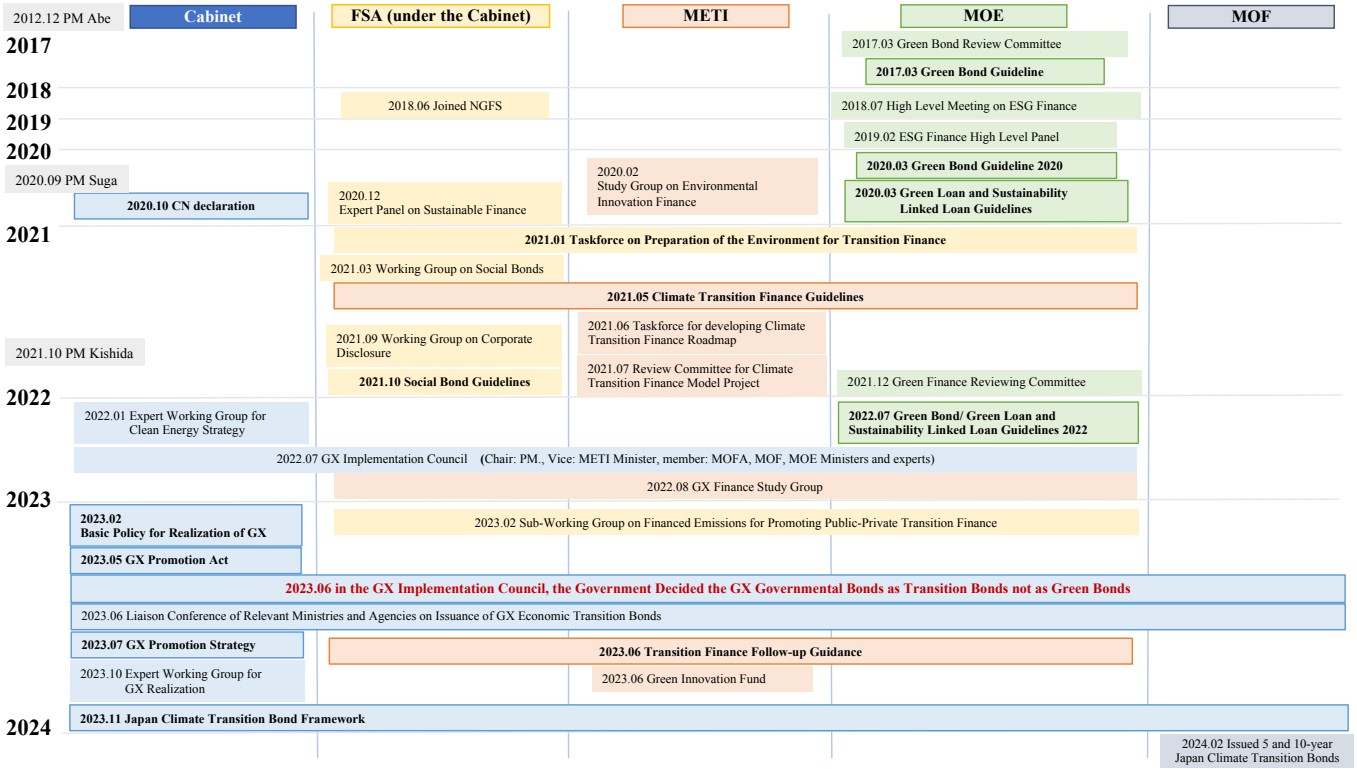
Following this momentum, in January 2021, the FSA, the MOE, and METI jointly established the "Taskforce on Preparation of the Environment for Transition Finance (hereafter called Transition Finance Taskforce)" and in May of that year, jointly published "the Basic Guidelines on Climate Transition Finance" (Financial Services Agency et al., 2021). Figure 4-1 presents a timeline of the dynamics of Japanese government agencies from the formation of green finance in 2017 to the current issuance of transition sovereign bonds in 2024 (see next section). It mainly summarizes when the committee was formed and when the guidelines and other publications were released. Those that were conducted jointly by ministries and agencies are shown across ministry boundaries and are indicated by using the color of the organizer of the event or the ministry whose name is written first.

Figure 4-1. Dynamics of Governmental Agencies on Sustainable Finance



Source: Compiled by the author

Services Agency et al., 2021).

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The concept of this climate transition finance extends beyond merely targeting the allocation of funds; it comprehensively evaluates the credibility and transparency of companies' transition strategies toward decarbonization and their implementation. The evaluation criteria encompass four elements: strategy and governance, environmental materiality, science-based targets and pathways, and transparency (Financial Services Agency et al., 2021). This framework aligns with "the Climate Transition Finance Handbook" released by the International Capital Market Association (ICMA) in December 2020, with ICMA commending the consistency of these guidelines (Financial Services Agency et al., 2021). In the Japanese context, climate transition finance is classified into three categories: transition bonds/loans and green bonds, characterized by their specified Use of Proceeds aligning with the aforementioned four elements, and sustainability-linked bonds/loans, which serve as general corporate purpose instruments with no specified use, yet adhere to the same four elements.

Subsequent to the release of the guidelines, in June 2021, the METI established "the Taskforce for Developing a Climate Transition Finance Roadmap" to implement policies in each targeted sector, and published the "Technology Roadmap for Transition Finance" for iron and steel, chemicals, electricity, gas, oil, paper and pulp, cement, and automobiles industries independently. For roadmaps in the international/domestic maritime shipping and aviation sectors, the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) developed similar roadmaps and made corresponding announcements. At the same time, in July, the METI established a "Review Committee for Selecting Model Projects" and offered selected issuers a reduced burden of third-party evaluation costs. Subsequently, from 2022 onwards, the METI evolved these model projects into formal subsidy programs, entrusting the execution of subsidy programs to

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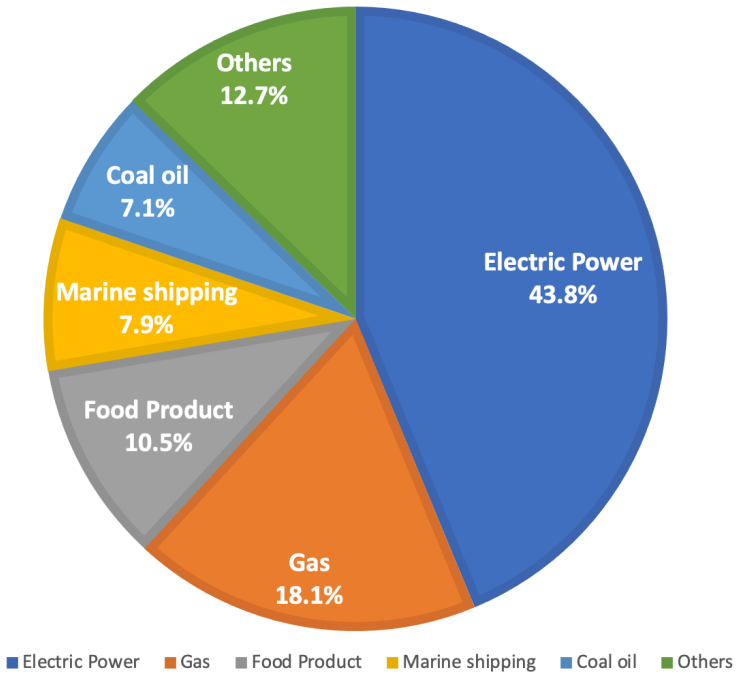
the Green Investment Promotion Organization (GIO), a non-profit organization under the METI. As a result, a total of 16 subsidy projects were selected for the fiscal years 2022 and 2023 (Ministry of Economy, Trade and Industry, 2024a).

Later, in June 2023, the Transition Finance Taskforce published "Transition Finance Follow-up Guidance," particularly for bond investors to enhance the credibility and effectiveness of transition finance, ensure the steady implementation of transition strategies after funding (Japan Financial Services Agency et al., 2023). As a result, as of December 2023, a cumulative total of approximately ¥1.6 trillion has been raised as transition finance, with the energy industry representing a significant portion, with electric power companies accounting for 43.8% and gas for 18.1% of the funding recipients as Figure 4-2 showed (Financial Services Agency, 2024a).

Figure 4-2. Cumulative Domestic Procurement Amount for Transition Finance



(Source: Financial Services Agency, 2024a)

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4.2 Emergence of GX Economy Transition Bonds

To implement Green Transformation (GX) in Japan, the cabinet convened the "GX Implementation Council" on July 27, 2022, chaired by the Prime Minister, with the METI Minister and the Chief Cabinet Secretary serving as vice-chairs, comprising the Foreign Minister, Finance Minister, Environment Minister, and relevant experts (Cabinet Secretariat, 2022). "GX" in the basic policy refers to Green Transformation, which means the transition from the fossil-fuel (such as coal and oil) —centered industrial and social structure to a clean-energy—(with no CO2 emissions) centered one (Agency for Natural Resources and Energy, 2023).

Through five GX implementation meetings, the "Basic Policy for GX Implementation" and the "GX Promotion Bill" were approved by the Cabinet on February 10, 2023, and submitted to the regular session of the National Diet (Ministry of Economy, Trade and Industry, 2023b). Subsequently, they were amended and approved in the House of Councillors on April 28, then finally passed in the House of Representatives on May 12 (Nikkei, 2023a, 2023b)[11]. Following this, on May 31, 2023, the "GX Decarbonization Electricity Bill" was approved in the House of Councillors.[12] These Acts, collectively

[11] The "GX Promotion Act" is based on "The Basic Policy for the Realization of GX" compiled by the GX Implementation Council in December 2022, and it legislates for (1) the formulation and execution of the GX Promotion Strategy, (2) the issuance of GX Economic Transition Bonds, (3) the introduction of growth-oriented carbon pricing, (4) the establishment of GX Promotion Mechanisms, and (5) progress evaluation and necessary revisions (Cabinet Secretariat, 2023).

[12] The "GX Decarbonization Electricity Act" is based on the "The Basic Policy for the Realization of GX" decided by the Cabinet on February 10, 2023, and it legislates for (1) the promotion of the maximum introduction of renewable energy in harmony with local communities, and (2) the promotion of nuclear power utilization/decommissioning with safety assurance as the paramount consideration.

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referred to as GX-related Acts, formed the basis for the "Transition Promotion Strategy for Decarbonized Growth Economy (GX Promotion Strategy)," which was decided upon by the Cabinet on July 28 of the same year (Ministry of Economy, Trade and Industry, 2023e).

Although these Acts were approved, acceleration and realization of this GX still require over ¥150 trillion in public and private GX investments over the next decade (Japan Securities Dealers Association, 2024). To attract this private investment, the GX Promotion Act stipulates that the Japanese government will issue 20 trillion yen of those "Decarbonized Growth Economic Structure Transition Bonds (GX Economic Transition Bonds)." Hence, from June 2023, "the Interagency Coordination and Liaison Meetings" were held among bureaucrats from the Cabinet Secretariat, FSA, MOF, METI, and MOE leading to the joint announcement of the "Japan Climate Transition Bond Framework" by these agencies in November 2023. Following this, in February 2024, Japan finally issued 10-year and 5-year Japan Climate Transition Bonds (hereafter CT sovereign bonds) as the world's first sovereign bonds. Both bonds were issued at about 800 billion yen each, and although both did not reach the market's expected level (up to 0.5%), they were evaluated as having generated a "greenium" with about 0.005% lower bid yield compared to the normal yield. (Ministry of Finance, Japan, 2024; Nikkei, 2024b; Research Institute for Environmental Finance, 2024b).[13]

[13] It is also called green premium. According to the United Nations Development Programme, greenium refers to "pricing benefits based on the logic that investors are willing to pay extra or accept lower yields in exchange for sustainable impact"(United Nations Development Programme, 2022).

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4.3 Summary

The above discussion outlines the development of Japan's transition finance, from its emergence to the issuance of GX Bonds, and provides a definition of transition finance in the Japanese context. As shown in Figure 4-1, green bond-related policies and guidelines were previously led solely by the MOE. However, the guidelines and policy deliberations for transition finance were jointly conducted by METI, the FSA, and MOE.

Subsequent GX policies were spearheaded by the Prime Minister's Office, reflecting heightened governmental prioritization. Furthermore, the GX Implementation Committee includes the Minister of Finance and the Minister of Foreign Affairs, underscoring the strategic importance placed on transition finance and GX policies.

Building on this background, the next chapter (Ch.5) analyzes the distributive politics surrounding transition finance, followed by an analysis of Japan's external strategies in Asia in the subsequent chapter (Ch.6).

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Chapter 5. Domestic Political Economy in Transition Finance

This chapter examines Japan's domestic political economy of the Green Transformation (GX) policy by dividing it into three key periods: first, the phase of the 2050 Carbon Neutral Declaration under Prime Minister Suga's administration in October 2020; second, the period from October 2021 when Prime Minister Kishida took office, leading up to the determination of the GX bonds as transition bonds; and finally, the period from after the decision until the issuance of the Japan Climate Transition Bond (hereafter GX national bond) in February 2024. At the end of the chapter, the consistency of Hypotheses 1 and 2 with the observed developments during these periods is evaluated.

5.1 Suga Administration and 2050 Carbon Declaration

5.1.1 Cabinet Leadership and Inter-ministerial Compromise and Cooperation

To date, the Japanese government has been actively promoting green finance initiatives, mainly by the Ministry of the Environment (MOE) and the Financial Services Agency (FSA). The MOE established the Green Bond Review Committee in 2017 and published the "Green Bond Guideline" (Ministry of the Environment, 2017). In 2018, they conducted "the High-Level Meeting on ESG Finance," and subsequently, "the ESG Finance High-Level Panel" in 2019, the MOE had been fostering and promoting the green finance market in Japan (Green Finance Portal, 2022). Moreover, in 2020, they updated the Green Bond Guidelines, alongside the publication of "Green Loan and Sustainability Linked Loan Guidelines," demonstrating a comprehensive approach to supporting various forms of green finance. Besides the support by the MOE, the FSA joined "the Network for Greening the Financial System (NGFS)" in 2018 and established "the Expert Panel on Sustainable Finance" in 2020, aiming to promote ESG evaluation, information

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disclosure, impact investment, social bonds, and related initiatives (Financial Services Agency, 2018, 2022).

However, since "the 2050 Carbon Neutral Declaration (hereafter CN declaration)" by then Prime Minister Suga in October 2020, this trend has undergone a slight change. Following this declaration, the MOE, the METI, and the FSA jointly established "the Taskforce on Preparation of the Environment for Transition Finance" in 2021. It represents the first joint group to include the METI in the sustainable finance field, laying the groundwork for subsequent discussions on transition finance. According to testimony, before the CN declaration, ministries were not fully committed to addressing decarbonization. However, the declaration became a pivotal starting point for both the government and industry in advancing Japan's progression toward carbon neutrality. It also obtained testimonies related to the relationship between the declaration and the development of transition finance taskforce.

"Without the declaration, there would have been no discussion on transition finance (TF committee member)." "This declaration drastically changed the landscape of climate policy (GX council member)." "There is no doubt that the declaration was a major catalyst for Japan, including the economy to get moving (GX institute official)."

Moreover, since this declaration, it has been suggested that Japan's climate change policy formation has changed from a bottom-up to a top-down approach. *"Prime Minister Suga shifted policy from a bottom-up to a top-down approach and took leadership by aiming for Carbon Neutral first (MOE committee member)." "Previously, discussions were cumulative, but CN declaration was more top-down and emerged amid international pressure (TF committee member)." "During Prime Minister Suga's tenure, environmental*

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policy was pursued in a top-down manner (climate policy professor 2).” Evidence of this shift is found in *“Prime Minister Suga’s directive to then-Minister of METI Kajiyama and Minister of the Environment Koizumi urged them to consider carbon pricing seriously. In response, both ministries initiated study groups and discussed the matter (GX institute official).”*

In response to the declaration, shifts in stance were observed within both the METI and the MOE. Regarding changes on the METI side, testimony indicates that environmental issues and political trends could no longer be overlooked. The following testimony illustrates this shift. *“The CN Declaration has changed METI’s policies drastically on the surface (MOE official).” “The METI believes that unless they fully engage in decarbonization, they cannot justify their existence (GX Council member).” “There has been a shift in stance to recognize that economic viability depends on addressing global warming (MOE Committee member).” “Following the declaration, METI felt compelled to actively engage (TF Committee member).” “The political tide has changed since the Carbon Zero Declaration, and METI thought that it would be difficult to resist this and maintain the original state (GX institute official).”*

As for changes on the part of the MOE, it is clear that they are changing their line of thinking to take the business community into consideration with a realistic approach. The following is their testimony. *“Previously, in the MOE, there was a strong adherence to principles, but now there has been a considerable shift towards realism (TF Committee member).” “Even though carbon tax was proposed, ultimately it could not be implemented without the consent of the METI (GX Council member).” “Without industry consensus, no system can be implemented. Hence, the MOE has begun to pay attention to their intentions and concerns (MOE Committee member).”*

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Besides, as for the carbon pricing, which was introduced in the GX National Policy for the first time, it obtained those testimonies: *"The METI made a compromise, and the carbon price was proposed by METI (TF Committee member),"* and *"At the METI committee on GX, the Iron and Steel Federation had been vehemently opposed to carbon pricing, but METI decided to introduce it after overcoming their opposition, this was so because of the top management's decision (MOE Council Member)."* Furthermore, it was also evident that *"A friend of mine from METI came to me to ask for my cooperation because we had changed our stance. (MOE Council Member)"* This evidence infers that both parties came to a compromise after the declaration.

From those changes in their stance, it is considered that the METI has taken some steps toward the MOE, and the MOE has taken too. Consequently, it was noticed that *"the conflict between the MOE and METI that existed prior to the carbon neutrality declaration is rapidly diminishing (GX Council member)."*

5.1.2 CN Declaration and Industries

The impact of the CN declaration also brought about significant changes in industry. *"The CN declaration notably became a catalyst for major shifts within the economic sector, particularly affecting Keidanren (GX institute official),"* and *"Keidanren also found it increasingly challenging to maintain its previous stance (GX committee member)."* Those testimonies indicate that "*the leadership from the Prime Minister's Office (Cabinet) significantly influenced both METI and Keidanren (TF committee member)."*

The relationship between the CN Declaration and Keidanren was also likely influenced by the support of then-Chairman of Keidanren Hiroaki Nakanishi. It was

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revealed that when Prime Minister Suga made the decision to announce the CN Declaration, he committed to pursuing growth through green initiatives based on Chairman Nakanishi's recommendations (Shimizu, 2020). Nakanishi was known for his strong commitment to realizing a decarbonized society (Nikkei, 2021a; The Sankei Shimbun, 2021b; Yamada, 2021), and he was even mentioned that "it is the problem that Japanese companies don't feel threatened by urgent climate change" (Horiuchi, 2020). His leadership is echoed in the results of interviews with Keidanren staff and the MOE official.[14]

Furthermore, in April 2021, under Prime Minister Suga's administration, Japan raised its 2030 greenhouse gas (GHG) reduction target to 46%, and it was welcomed by various NGOs (WWF Japan, 2020; Yamashita, 2021b). Prime Minister Suga indicated that this decision was made following recommendations from the Headquarters for the Promotion of Global Warming Countermeasures (Yamashita, 2021a), but testimony also revealed that the Japan Climate Initiative (JCI), an NGO comprising Japanese corporations and local governments, actively advocated for this target. According to a UN advisor, *"A considerable number of communications were sent under the JCI's name to the Prime Minister's closest bureaucrats and politicians. It is unclear if this directly influenced the decision, but the target was ultimately set at 46% instead of 45%."*

Through support from the leader of the industry group and active NGO advocacy, the CN declaration was issued, subsequently fostering inter-ministerial cooperation on transition finance. During this period, it can be inferred that the political environment was

[14] Testimonials: *"Mr. Nakanishi was very interested in climate change at the time (Keidanren staff 2)." "There were some global trends, but it seems there was also a lot of personal thinking on the part of Chairman Nakanishi (MOE official)."*

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more likely to reflect the views of pro-environmental actors.

5.2 Dynamics from Suga to Kishida Administration

5.2.1 Cabinet Shift and Inter-ministerial Cooperation to Competition

Suga administration announced the CN declaration and formed the Transition Finance Task Force, but specific policies still needed to be decided.[15] Against this backdrop, after the Kishida administration took over in October 2021, the "GX Implementation Committee" was established in July 2022, and the transition finance was planned more practically within it. From this period, a shift in the relationship between METI and MOE has been seen.

One respondent suggests a specific dynamic in their interaction: *"Since the CN declaration included the introduction of carbon pricing, the MOE initially felt they could have the initiative to decide on the system. Additionally, since MOE Minister Koizumi had a close relationship with Prime Minister Suga, it seemed that the MOE was taking the lead at first. However, with the Kishida administration, the METI popped to the forefront and led the decision-making process through the Cabinet Secretariat, resulting in a sudden shift to METI-led initiatives (MOE Council member)."* It suggests that although both MOE and METI established a cooperative relationship in response to the CN declaration, as one of the MOE committee members mentioned *"It felt as though the MOE and METI were competing regarding GX initiatives,"* there had a new competitive

[15] Testimonies: *"At the time of Mr. Suga, we did not have time and could not discuss the specific energy or industry policy (GX committee member)." "Prime minister Suga ordered METI and MOE to consider carbon pricing, but they could not able to orchestrate it into the policy (GX institute official)"*

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dynamic developed alongside cooperative efforts.

As a result, a respondent noted, *"I think people in the MOE feel that although they initially worked hard on it, the METI took it over (MOE Committee Member),"* and this view was mentioned by other respondents as well. A MOE official also commented that *"Following the CN declaration, METI's policies appeared to change on the surface, but of course, they aimed to take control thereafter."* These responses indicate an underlying competitive relationship between the two ministries.

Indeed, after the Kishida administration, METI has independently managed all aspects of the transition finance, including meetings to develop transition finance roadmaps and the committee of the model projects selection. Regarding government transition finance policy, although NGOs and opposition parties have been criticizing the government for "extending the lifespan of nuclear power plants,"[16] the MOE has been unable to address nuclear power issues. There is a testimony that *"The MOE cannot touch the nuclear power issues. There is a sense that government agencies do not violate each other's turf, and things outside their jurisdiction cannot be discussed in the Council (MOE council member)."* It indicates the existence of existential politics within METI and the industrial sector.

Besides, *"The MOE is supportive of the measures taken by the EU, but the METI believes that the Japanese economy will not be able to survive if policies are implemented in the EU's way (climate policy professor 2)." "Transition finance was introduced by the METI, and the FSA, which shared the same awareness of the issue, supported it (TF*

[16] Please refer to Citizens' Commission on Nuclear Energy et al., 2023; FoE Japan, 2023; Greenpeace Japan, 2023; Reiwa Shinsengumi, 2023; Renewable Energy Institute, 2022; Shiva, 2023; The Constitutional Democratic Party of Japan, 2023.

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committee member).” “The MOE joined GX in the form of a ride-along (GX committee member).” These responses suggest that distributive politics were at work between the METI and the MOE, resulting in a policy-making process dominated by the METI.

In fact, a MOE official noted, *“the MOE actually is less concerned with the purity of means but more focused on improving the environment,”* and further mentioned, *“the MOE wanted to pursue carbon pricing, and considering this, when policies were put together, there had no option to oppose it.”* These responses suggest that *“the MOE has almost completely shifted toward METI’s stance, accepting the transition (Environmental INGO).”* It can be inferred that the policy was formed by the style in which *“the MOE largely acknowledges METI’s leadership (governmental financial center).”*

5.2.2. Cabinet Shifts and Associated Personnel Changes

Under the Kishida administration, METI’s influence has reportedly increased compared to previous administrations.[17] During the Suga administration, the Headquarters for the Promotion of Global Warming Countermeasures was situated within the Cabinet; the MOE Minister Koizumi served as the Minister of this Headquarters, and *“Academics and environmental NGO representatives were included as members (GX council member).”* Additionally, the close relationship between Minister Koizumi, Prime Minister Suga, and Foreign Minister Kono has been frequently reported; several respondents also indicated that environmental policies advanced during this period due

[17] Testimonies: *“The Abe and Suga cabinets were conspicuously led by the Prime Minister’s Office, but this has waned in the Kishida cabinet, and METI has become a force to be reckoned with (MOE Research Institute).” “Mr. Kishida is closer to the METI (UNEPFI Advisor).”*

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to these three figures in the roles of the Prime Minister and key ministers.[18]

Indeed, it turns out that Koizumi, the Minister of the Environment, has made significant progress in environmental policy. Koizumi was a pro-nuclear power plant removalist and made efforts to introduce this system despite opposition from industry (The Sankei Shimbun, 2021a, 2021c). There is also an assessment that *"Shinjiro Koizumi was the only Environment Minister to openly oppose the continuation of coal-fired power generation (Environmental INGO)."* The depth of the relationship between Koizumi and Suga has been widely discussed in various articles, highlighting their alignment in the direction (Nakayama, 2023; Nikkei, 2022; Shimizu, 2020). The respondents also said that *"Suga is a relatively forward-looking politician in the LDP with regard to climate change measures (climate policy professor 2)"* and is *"highly regarded in the field of environmental policy (MOE council member)."*

In Japan's policymaking process, *"the affiliation and policy orientation of the Prime Minister's close aides are critical factors. As a result, each ministry strategically sends personnel near the Prime Minister to draw the primary policy to their preferences (UNEPFI Advisor)."* Under the Kishida administration, Environment Minister Tsuyoshi Yamaguchi, who was appointed after the administration change, made a pointed comment

[18] Testimonies: *"During Suga's prime minister period, it was because of Environment Minister Koizumi and Foreign Minister Kono that Japan was able to take the lead in promoting a renewable energy initiative instead of nuclear power and setting higher goals for Japan (climate policy professor 2)." "I think climate policy was moved by the fact that Minister of Environment Koizumi, Prime Minister Suga, and Minister of Foreign Affairs Kono, who were interested in and understood energy issues and climate change issues, were all at the same time, and they came out to support it (Environmental INGO)." "Suga, Kono, and Koizumi are all from Kanagawa (same prefecture) and had a close relationship with each other, which has brought us closer to the goal of the international level (UNEPFI Advisor)."*

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that "the Fukushima disaster would not have happened in Europe; the circumstances in Japan are different" (Nobuhiro & Oda, 2022). Regarding nuclear plant restarts, he stated in a press conference, "It is not my place to comment; I respect the Prime Minister's judgment, with safety as the highest priority" (Ministry of the Environment, 2022b). These statements illustrate how personnel changes accompanying a shift in administration can significantly impact policy stances.

Within the GX Implementation Council, which was established after the Kishida administration, changes in membership reflect a shift towards including representatives from pro-GX groups such as the oil industry, Keidanren companies, trading companies, and financial institutions.[19] This council, set up by the Cabinet, is widely reported to operate under the leadership of METI. *"Since the start of the Kishida administration, GX has advanced dramatically, with the Minister of METI being designated as the GX promotion Minister, officially institutionalizing METI's central role (GX institute official)."* Another GX committee member commented, *"The Kishida administration effectively built upon the previous administration's initiatives and progressed into specific action plans, where METI played a significant role."* Testimonies also highlight *"Kishida's strong ties to the industrial sector, especially the nuclear industry, might be related to the decision to incorporate nuclear energy within the GX policy framework (climate policy professor 2)",* suggesting a broader connection not only with METI but also with key industrial stakeholders.

[19] Testimony: *"We had to implement what we set forth during the Suga administration, so a lot of people from the oil industry, Keidanren companies, trading companies (who were proponents of GX), and financial sectors became Implementation Council members (GX committee members)."*

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5.3 From GX Basic Policy to GX Bonds Decision

5.3.1 Industry Reaction and GX

Keidanren has not previously published any particularly prominent endorsements or statements supporting green finance; instead, it has mainly limited its involvement to introducing cases related to green bond issuance. However, in 2019, Keidanren published a document expressing its concern about the current EU-centered discussion of sustainable finance, especially about taxonomy, as "judgments of sustainability should be based not only on environmental aspects but on comprehensive evaluations" (Keidanren, 2019). Against this backdrop, in April 2021, prior to the release of the Climate Transition Finance Guidelines, Keidanren commented that the proposed guidelines generally reflect the realities of our country and can be largely praised. They also pledged to collaborate strongly with the Japanese government to promote it (Keidanren, 2021a).

Keidanren's policy-making process generally *"mirrors that of the government, where small groups akin to advisory councils are assembled by topic to develop policies and proposals through a bottom-up approach (Keidanren staff 1)."* However, it was also noted that *"changes in the organization's chairmanship can significantly shift policy priorities based on the chair's areas of interest (Keidanren staff 1)."*

In fact, Hiroaki Nakanishi, known for his commitment to decarbonization, chose Masakazu Tokura, a successor who shared his strong environmental commitment and had earned Nakanishi's trust (PRESIDENT Online, 2021; Yamada, 2021). After assuming the chairmanship in June 2021, Tokura declared his intent to "faithfully continue the path of Society 5.0 for SDGs[20] and sustainable capitalism set forth by Chairman Nakanishi"

[20] Society 5.0 for SDGs is a concept of balancing economic development with solutions to social issues by maximizing the use of innovative technologies to achieve the SDGs by Keidanren.

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(Keidanren, 2021b). He emphasized the importance of advancing GX through public-private collaboration to address Japan's lagging awareness of environmental issues (Nikkei, 2021b).

Regarding GX and Chairman Tokura's involvement, Keidanren officials noted, *"Chairman Tokura independently assembled a team to drive the GX initiative forward. His interests are nearly regarded as a "heavenly mandate (Tsuru no hitokoe)," so during this GX proposal, it was very much top-down, with senior staff gathering top VIPs from the business sector to draft it over the course of nearly six months. This was an exception."* They expressed surprise at his drive and influence. This exceptional process resulted in *"Keidanren's GX proposal being directly reflected in national policy (Keidanren staff 1),"* highlighting Keidanren and the broader industry's significant presence in shaping GX policy.

In addition to Keidanren, the Japan Chamber of Commerce and Industry (JCCI),[21] one of Japan's three major economic organizations, expressed its support for the GX policy in December 2022. JCCI emphasized the urgent need for nuclear power plant restarts and called for the government to take a leading role in pursuing this goal with strong measures (The Japan Chamber of Commerce and Industry, 2022). Another major organization, Keizai Doyukai, differs from Keidanren in that it is more person-centric than industry-based, often taking a more proactive stance on climate change policies (Satoh, 2017). Regarding the GX Basic Policy, Keizai Doyukai also expressed support but noted "a lack of clarity on how the objectives would be achieved," emphasizing "the need for public oversight of financial flows" (Keizai Doyukai, 2023). However, within

[21] The JCCI has local chambers of commerce and industry as its members and represents the interests of local businesspeople.

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the business community, Keizai Doyukai's influence appears weaker than Keidanren's. As one GX committee member observed, *"Doyukai makes good statements, but they speak more casually so that the government ultimately pays attention to what Keidanren says."* This also underscores Keidanren's substantial political influence in shaping policies compared to other economic organizations.

5.3.2 Opposition from pro-environmental actors

The GX policy is grounded in the "GX Promotion Act" and the "GX Decarbonization Electricity Act (hereafter GX Electricity Act)," both of which were enacted in April 2023. However, the passage of these laws was met with significant opposition, particularly from NGOs. One of the main points of contention was the inclusion of nuclear power, which Prime Minister Kishida strongly advocated and classified as eligible for transition finance. The GX Electricity Act, with its support for nuclear energy, drew the highest level of criticism.[22]

Before the GX Electricity Act was passed in April 2023, nine Japanese NGOs submitted a request to representatives in the Japanese Diet, expressing opposition to the GX Electricity Bill, stating that it exclusively treated "nuclear power" well (Citizens' Commission on Nuclear Energy et al., 2023). Additionally, the opposition was voiced by opposition parties (Reiwa Shinsengumi, 2023; The Constitutional Democratic Party of Japan, 2023) and the Japan Federation of Bar Associations (JFBA) as its presidential

[22] The Transition Roadmap for the Power Sector also states that "it is important to promote steady decarbonization using renewable energy and nuclear power, which are currently available decarbonized power sources (Agency for Natural Resources and Energy, 2022a)."

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declaration (Kobayashi, 2023b). Regarding NGO efforts, one representative noted, *"In response to our initiatives, opposition parties opposed nuclear power during the bill's voting, but engaging with the ruling party proved challenging (Environmental INGO)."* Another GX committee member also acknowledged, *"It is indeed true that NGO statements rarely gain traction in government discussions."* These responses highlight the limited influence NGOs have had on shaping the ruling party's stance in the GX legislative process

Furthermore, criticisms have been raised domestically and internationally regarding the inclusion of hydrogen and ammonia mixed combustion as a supported item in transition finance. In September 2022, five initial signatories issued a joint statement with support from 14 countries and regional civil society organizations, stating the GX strategy was the wrong policy and strongly urged support based on regional needs (Friends of the Earth Japan et al., 2022). The JFBA also expressed doubts about ammonia mixed combustion and nuclear power generation, stating that these should not be treated as transition bonds (Kobayashi, 2023a). Moreover, Japan's transition finance has been criticized for being an industrial policy to ensure that Japanese companies continue to rely on thermal power generation as much as possible (Metzger, 2023; Research Institute for Environmental Finance, 2020, 2023). From those criticisms, it is evident that there is not only support for transition finance but also sharp and massive opposition domestically.

5.4 Formation of the Pro-developmental Coalition to the Decision of Transition

Despite the significant opposition, both GX-related bills were passed, and GX sovereign bonds were determined as transition finance. Then, why did the policy shift

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from an initial plan to include both green and transition initiatives to one focused solely on transition? This shift may be attributed to strong resistance against green initiatives from more powerful sectors within Japan's industrial community. In response, a focus on transition policies emerged as an alternative. A pro-developmental coalition likely formed between these influential industries and METI, which ultimately wielded more power than the MOE. This coalition may have significantly shaped the final policy decisions.

5.4.1 Distributive Conflict within Keidanren

For a long time, there has been a *"gradation of views on decarbonization policies within the industrial sector and Keidanren (climate policy professor 2)."* This has created a structure of environmental policy agreement on general but opposition on specifics (PRESIDENT Online, 2021). Notably, carbon pricing, adopted as part of the GX League under the GX policy, sparked significant debate within Keidanren, leading to internal negotiations and adjustments.[23]

Indeed, *"within Keidanren, strong opposition to carbon pricing initially came primarily only from the steel industry (GX committee member)."* However, over time, *"the influence of the steel sector has significantly diminished, while support for carbon pricing has grown among service industries, trading companies, financial institutions, and retail sectors (GX committee member, climate policy professor 1)."* This shift reflects an internal adjustment process within Keidanren, as *"the eventual acceptance of carbon*

[23] Testimony: *"A conflict of opinion has developed between companies with large Scope 1.2 (e.g., steel) and companies with large Scope 3 (e.g., chemical), and even within Keidanren, there is a messy situation with offense and defense. (TF committee member)"*

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pricing emerged from negotiations between industries in favor and those against it, based on the recognition that progress was unattainable without it (GX committee member).” Similarly, a member of the transition finance committee noted, *“Previously, Keidanren firmly opposed carbon pricing, but now they have shifted toward reluctantly accepting its introduction.”*

As a result, Keidanren’s proposals on the GX policy now acknowledge that “if introduced at an appropriate time, carbon pricing could serve as a means to achieve carbon neutrality by 2050” (Keidanren, 2022). Keidanren Chairman Tokura also stated, “We should consider implementation of carbon pricing which contributes to economic growth (Tokura, 2022).” Therefore, while this thesis classifies Keidanren as a pro-developmental actor, it is evident that internal divisions exist, with both pro-environmental and pro-developmental actors vying for influence. This has led to distributive conflict within Keidanren over the direction of climate policy.

5.4.2 Resistance to Green Initiatives

Despite discussions around green finance, within Keidanren, the eventual selection of transition finance as the primary approach in Japan’s sustainable finance strategy reflects the dominance of pro-developmental actors, such as the steel and electricity industries. Their influence is evidenced by statements such as, *“Steel and coal industries are absolutely unacceptable under green finance. These sectors are the strongest opponents within Keidanren, and transition finance seems to have been chosen to gain their approval (climate policy professor 2).”* Similarly, as a fund monitoring NGO noted, *“While finance representatives resist as best as they can, the voices of the steel sector*

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tend to prevail within Keidanren," there was opposition from existential industries. Moreover, it became apparent that decision-making power was concentrated in the hands of the electricity sector, which controls critical data. As one NGO that advocates the energy policy member pointed out, *"Those operating the electricity power hold the most data. If they argue that stable operations are not feasible, then other actors have little room to counter that position."*

The strength of lobbying by industrial actors, particularly in the steel and electricity sectors, also emerged as a critical factor.[24] *"Given the spike in fossil fuel prices due to the Ukraine crisis, resource-related and plant industries now have the financial power to intensify their lobbying efforts (energy policy advocacy NGO)."* Additionally, the lack of transparency in lobbying practices in Japan was criticized, with an environmental INGO noting, *"While Europe discloses corporate lobbying activities, Japan's lobbying landscape remains opaque."*

Regarding renewable energy, entrenched resistance was evident. *"Japan's power companies rely on existing fossil fuel and nuclear assets, so they aim to avoid transitioning to renewables, which would render those assets obsolete and manufacturing industries' resistance to renewables, as they prioritize leveraging Japanese technologies abroad (fund monitoring NGO)." "The intention to preserve the status quo is particularly strong among METI-aligned groups, making significant progress difficult (UNEPFI Advisor)."* This evidence shows strong opposition, mainly from heavy industry, electric, and manufacturing.

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[24] Testimonies: "Lobbying is very strong in the steel and power industries (fund monitoring NGO, *governmental financial center*)." "Even now, the fact that they are trying to preserve coal-fired power plants is clearly due to pressure from the power companies (*UNEPFI Advisor*)." "the power companies are making their case using words like 'stable supply' (climate policy professor 2)."

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These testimonies reinforce the assertion made by an MOE official that *"Keidanren has always held a significant voice—not so much in drafting policies, but rather in exercising veto power."* In line with this, a TF committee member stated, *"Keidanren recognized that relying solely on green finance would be challenging, leading them to support government-backed transition finance."* This suggests that Keidanren's influence played a critical role in shaping the government's approach to transition finance. However, Keidanren's GX proposals also acknowledged green finance for the first time, mentioning the promotion of green bonds, loans, and sustainability-linked loans. Even though green finance had been developed earlier, these financial instruments were only described as ensuring the diversity of funding sources in its proposal. Therefore, green finance appeared to be marginalized over alternative options rather than central to transition strategies and was treated as a secondary option within the broader GX policy framework.

5.4.3 METI's Role and the Adoption of Transition Finance

Facing significant lobbying pressure, METI acknowledged its role as a mediator between industrial reluctance and policy implementation. As a GX institution official noted, *"Industries don't want to pursue these policies, so METI's job is to figure out how to convince them. Transition finance, in particular, emerged as a response to the demands of high-emission industries." "The concept of transition finance is particularly sought after by industries, especially those at the core of high-emission sectors (GX institution official)."* Similarly, a MOE council member stated, *"There was an aspect of choosing transition finance to gain the understanding and participation of industries such as steel and chemicals"* METI's advocacy for transition finance also stemmed from practical

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concerns. According to MOE officials, *"Within METI, there was a recognition that industries would find it difficult to issue green bonds alone, making transition finance a preferred alternative."*

This alignment between METI and Keidanren—both representing pro-developmental actors—played a decisive role in Japan's adoption of transition finance. One MOE council member remarked, *"Given the strong alignment between Keidanren and METI's stance, Japan likely chose transition finance. The influence of the Steel Federation is particularly strong."* Furthermore, *"Initially, the MOE took the lead, which included green finance. However, with METI ultimately assuming control, it might be possible that the focus shifted to transition finance."*

This suggests that the selection of transition finance resulted from a distributive conflict within and between bureaucratic and industrial actors. On one hand, METI emerged as the dominant pro-developmental actor in its conflict with the MOE, favoring policies aligned with industrial interests. On the other, heavy industries such as steel, acting as pro-developmental actors within Keidanren, held significant influence. The coalition formed between METI and these industrial actors enabled them to shape policy direction, ultimately leading to the adoption of transition finance. Figure 5-1 illustrates how the government and industry sectors form a Pro-developmental Coalition.

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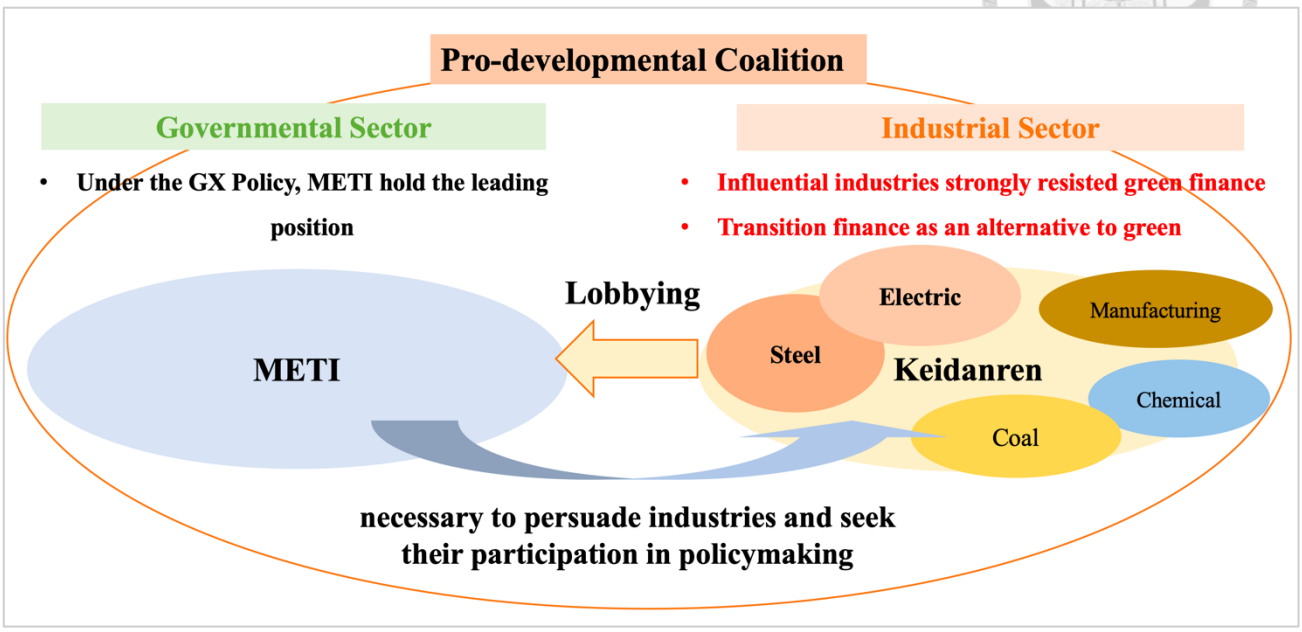
Figure 5-1. The Formation of Pro-developmental Coalition



Source: Compiled by the author

5.4.4 Presence of Ministry of Finance in Bond Issuance

Although the Ministry of Finance (MOF) has often appeared to play a less visible role in Figure 4-1 (page 47), it has been deeply involved in the issuance of the Japan Climate Transition Bond and related climate policy initiatives. Interviews revealed that there had been discussions about issuing green finance in the form of sovereign bonds dating back to around 2017. However, *"the MOF was firmly against issuing labeled bonds, and we also could not have reconciled the concept of green sovereign bonds with carbon pricing. It was not the right timing (MOE official)."* This sentiment, combined with the lack of readiness, could not reach the realization of such bonds during that period. In fact, it is reasonable to infer that METI and many industrial sectors strongly opposed carbon pricing, making its implementation unfeasible during this period.

The situation evolved, as noted by the GX institute official: *"When the MOF*

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considered issuing government bonds, it required a secured redemption source as an absolute condition. METI eventually agreed to secure the redemption source through future carbon pricing revenues." This demonstrates both the MOF's decisive authority in bond issuance and a shift in METI and industrial stances.

Initially, *"both sustainable finance and traditional sovereign bonds were considered as options for issuance, but the MOF specifically requested METI to adopt the sustainable finance framework (TF committee member)."* This reveals the MOF's influence in shaping the eventual format of the GX Transition Bond. Historically, the MOF and MOE have maintained a close relationship.[25] Additionally, during Shinjiro Koizumi's tenure as Environment Minister, progress in environmental policies was attributed to the strong advocacy of MOE officials with MOF backgrounds. *"The Vice Minister of the Environment at the time was from the MOF and worked tirelessly to advance the agenda. The current Vice Minister of the Environment also comes from the MOF (governmental financial center)."* This continuity reflects *"longstanding personal networks between the MOF and MOE, dating back to the establishment of the Environmental Agency, which is the former institute of MOE (governmental financial center)."*

In summary, these factors converged to enable the rapid adoption of carbon pricing and the issuance of the GX Transition Bond, despite decades of stagnation. The GX institute official observed, *"Carbon pricing, which had been discussed without significant progress for 10 or 20 years, was decided at an astonishing speed."* This outcome reflects the alignment of interests: METI and industry groups advocating for

[25] Testimony: *"During the 1970s Minamata disease pollution crisis, MOF officials were instrumental in financial decisions related to environmental remediation (governmental financial center).*

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transition finance, the MOE pushing for carbon pricing, and the MOF prioritizing secure funding sources for bond issuance. Together, these factors catalyzed the issuance of the GX Transition Bond.

5.5 After the Decision of GX Transition Bond

The decision to issue the Japan Climate Transition Bond (hereafter, GX Transition Bond) as a transition finance instrument was finalized, but subsequent changes were observed regarding its scope of application. As mentioned earlier, ammonia-mixed combustion became an early target of criticism from NGOs and faced international scrutiny. Initially, the 'Japan Climate Transition Bond Framework,' released in November 2023 under the leadership of the Cabinet Secretariat, included the promotion of ammonia utilization as part of its eligibility criteria for financing (Cabinet Secretariat et al., 2023). However, 3 month later in February 2024, when the GX Transition Bond was issued, "fuel ammonia projects" were excluded from the investment scope, sparking significant reactions. For years, numerous overseas media outlets, research institutions, and international investors criticized ammonia mixed firing as "greenwashing" and an attempt to "extend the lifespan of coal-fired power plants." This backlash likely contributed to its exclusion during the bond's first year (Ikeda, 2024; Kiuchi, 2024a; Nikkei, 2024a).

These developments illustrate that while the GX Transition Bond has been established as a transitional finance instrument, its scope remains fluid, influenced by external pressures and shifting dynamics between stakeholders. This ongoing distributive conflict highlights the tension between pro-environmental and pro-developmental actors, which continue to shape the evolving framework of transition finance.

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Interviewees confirmed this development, noting that *"ammonia mixed combustion was excluded because the Climate Bonds Initiative (CBI) strongly opposed its certification as part of the transition bond framework during discussions with METI* (MOE *research institute)."* While Keidanren expressed strong support for ammonia co-firing, stating, *"Keidanren is strongly promoting ammonia mixed combustion (Keidanren staff 2),"* the combined pressure from international certification bodies and overseas investors appears to be the support for pro-environmental actors and have led to its removal from the sovereign bond's scope. As a result, the exclusion of ammonia mixed combustion reduced investor concerns about greenwashing (Nikkei, 2024a). However, skepticism remains, with some suggesting that its removal is temporary and questioning whether it was a case of "ammonia mixed combustion hidden rather than excluded" (Research Institute for Environmental Finance, 2024a). Therefore, the conditions for future transition bond issuances are drawing significant attention.

5.6 Consistency with Hypothesis 1 and 2

Based on the analysis presented above, the consistency with hypotheses 1 and 2 can be evaluated. The establishment of the taskforce highlights initial collaboration and mutual concessions between the MOE and METI. However, as events unfolded under the Kishida administration, a new layer of competition emerged, culminating in METI consolidating its leadership. This progression confirms consistency with hypothesis 1.

Hypothesis 2 posited that Keidanren's influence in Japan's environmental policymaking stemmed from its prior success in environmental policies, specifically through voluntary action plans. On this point, sufficient evidence could not be obtained.

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Nonetheless, the evidence presented in this chapter reveals that Keidanren's influence remains strong, regardless of its earlier successes in environmental policy. Existing vested interests—such as heavy industries like steel and electricity—continue to wield significant power within Keidanren and the broader Japanese industry. These actors maintain a substantial voice in environmental policymaking as well. Therefore, irrespective of the "success of the voluntary action plans" referenced in the hypothesis, heavy industries that favor transition finance have continued to exert considerable influence on sustainable finance policies. This underscores their enduring capacity to shape policy directions in line with their preferences.

Moreover, Japan's policymaking process operates not by majority rule but through a consensus-based system (Iio, 2007). When the MOE and the METI convene joint councils, they are required to obtain mutual agreement on policies. Consequently, policies tend to *"move in a direction that takes the other party into consideration (climate policy professor 2)."* Hence, Keidanren is a member of the GX and transition finance committees, enabling it to exert substantial influence in these policymaking spaces. This involvement allows Keidanren to incorporate its entrenched practices into policies. The evidence suggests that Keidanren's significant influence plays a critical role in inter-ministerial agreements, leading to situations where MOE concedes policies to METI. Thus, Hypothesis 2 is validated, as the influence of pro-developmental actors within the industrial sector is shown to have a considerable impact on policy outcomes.

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Chapter 6. Japanese Transition Finance Toward Asia

This chapter examines Japan's transition finance and GX-related developments and cooperation in Asia, analyzing Japan's strategic approach to transition finance in the region and its positioning in contrast to the discourses of the European Union and China. Building on this analysis, the chapter explores the factors that led Japan to prioritize transition finance over green finance in its diplomatic strategy.

6.1 Building Cooperative Relationships within Asia

As demonstrated by Keidanren's actions, Japan's industrial sector has long been cautious about the EU-led sustainable finance movement, such as taxonomy and carbon pricing. This is reflected in statements such as, *"There is still wariness toward the EU stemming from the trauma of the Kyoto Protocol (TF committee member),"* and *"I think many people in Japan believed that an EU-led approach would not be practical in addressing real-world issues (GX council member)."*

Regarding Japan's green finance initiatives, the Japan Bank for International Cooperation (JBIC) issued green bonds in 2022, but it was after the publication of the 2021 Transition Finance Guidelines (Japan Bank for International Cooperation, 2022). This means that before the transition finance proliferated, there were no particular incentives to promote green finance. Until then, as noted *"There is not much movement to expand green finance in Asia (MOE research institute),"* the Cabinet Secretariat and the Ministry of Foreign Affairs (MOFA) also had rarely discussed green finance in the context of diplomatic policy, but it was more of a domestic policy.

However, the narrative shifted in May 2021 with the release of the Transition Finance Guidelines. On that same month, the METI announced the **Asia Energy**

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Transition Initiative (AETI) (Table 6-1). This initiative simultaneously aims to achieve sustainable economic growth and carbon neutrality in Asia, and the METI promptly advocated the importance of the formulation of an Asian version of transition finance (Ministry of Economy, Trade and Industry, 2021c). Additionally, the Japanese government positioned transition finance as a pragmatic necessity to be shared with other Asian nations, as well as the United States, Canada, Australia, and Middle Eastern countries—noticeably excluding the EU from this outreach. At the same time, under the AETI framework, Mitsubishi UFJ Financial Group led the establishment of the **Asia Transition Finance Study Group**, in collaboration with major banks and government agencies across Asia (Ministry of Economy, Trade and Industry, 2022). This group was founded on the recognition that expanding transition finance is essential for achieving net-zero emissions in Asian economies. Since its inception, the group has actively released guidelines and reports to advance its objectives (Mizuho Financial Group, 2022). This Asian-oriented strategy was referenced in the June 2021 Green Growth Strategy, which affirmed, "We are also going to promote the formulation and dissemination of an Asian version of the transition finance concept based on the Japanese basic guideline" (Cabinet Secretariat et al., 2021). The activities under AETI represent the concrete realization of these strategic goals.

Afterward, in October 2021, the Japanese government chaired the **Asia Green Growth Partnership Ministerial Meeting**, bringing together industry ministers or their representatives from 22 countries, along with the Association of South East Asian Nations (ASEAN) Secretariat, the International Energy Agency (IEA), and the Economic Research Institute for ASEAN and East Asia (ERIA). During this meeting, participants reaffirmed the need to achieve green growth and accelerate realistic and diverse energy

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transitions (Ministry of Economy, Trade and Industry, 2021e). Japan has since continued its active diplomatic efforts in transition finance, including signing bilateral memoranda of cooperation on energy transitions (Agency for Natural Resources and Energy, 2022b).

More recently, in December 2023, Japan spearheaded the establishment of the **Asia Zero Emission Community (AZEC)** (Nikkei, 2023c). This initiative culminated in the **AZEC Leaders' Joint Statement**, jointly issued by 11 member countries: Australia, Brunei Darussalam, Cambodia, Indonesia, Japan, Lao PDR, Malaysia, the Philippines, Singapore, Thailand, and Vietnam (Asia Zero Emission Community, 2023). Keidanren's significant influence is also evident in the AZEC initiative. According to one of the staff in Keidanren, *"METI requested Keidanren to push for AZEC so that we made our Keidanren's proposal in July. This proposal was almost entirely incorporated into METI and government plans."* Furthermore, within the **AZEC Advocacy Group**, which consists of private sectors, Keidanren's influence was apparent, with respondents noting that "*Keidanren's proposal was nearly directly translated into English and released as the AZEC Advocacy group statement (Keidanren staff 1)."* These remarks highlight Keidanren's substantial role in shaping AZEC policies.

In March 2024, the Financial Services Agency (FSA) hosted a meeting to lay the groundwork for establishing the **Asia GX (Green Transformation) Consortium**, aimed at promoting transition finance to achieve decarbonization in Asia. The meeting included participation from key organizations such as the Asian Development Bank, the Glasgow Financial Alliance for Net Zero (GFANZ), and the ASEAN Secretariat (Financial Services Agency, 2024b). Subsequently, in October 2024, the Asia GX Consortium was officially launched (Financial Services Agency, 2024c).

These developments mark a significant shift in the promotion of sustainable finance

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across Asia, which had previously lacked momentum. Transition finance, driven by the Japanese government and Japanese financial institutions, served as a catalyst for this rapid expansion. Notably, many of these initiatives were announced before the establishment of the GX Implementation Council, underscoring the strong commitment of the Japanese government to advancing transition finance independently of broader GX policies.

Table 6-1. Significant Events of Transition Finance Related to Asia

Date	Significant Events related to Asia	Domestic Events
2020.10.26		"CN declaration"
2021.01.27		Established Transition Finance Taskforce
2021.05.07		"Climate Transition Finance Guidelines"
2021.05.28	Established "Asia Energy Transition Initiative (AETI)", and "the Asia Transition Finance Study Group (ATFSG)".	
2021.06.13	Japan announced an energy-related partnership with Australia.	
2021.06.18		"Green Growth Strategy Through Achieving CN 2050"
2021.09.26	ATFSG published "Asia Transition Finance Guidelines" and "Asia Transition Finance Activity Report."	
2021.10.04	Japan chaired "Asia Green Growth Partnership Ministerial Meeting"	
2021.11	Japan signed a MOU with Vietnam on bilateral cooperation for energy transition.	
2022.01	Japan signed a MOU with Indonesia and Thailand on bilateral cooperation for energy transition. Established "ASIA-Japan Investing for the Future Initiative (AJIF)"	

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2022.07.27		Established GX Implementation Council
2022.12.22		"The Basic Policy for the Realization of GX"
2023.06.27		Decided GX sovereign bonds as transition bonds.
2023.12.18	Established Asia Zero Emission Community and AZEC Advocacy Group. AZEC published the Asia Zero Emission Community Leaders' Joint Statement.	
2024.10.02	Established Asia GX Consortium	

Source: Compiled by the author

6.2 Japan's Strategy for Promoting Transition Finance in Asia

6.2.1 The desire to take leadership in Asia

Japan's advocacy for transition finance in Asia rests on two key objectives: (1) leveraging the global and regional recognition of Japanese technologies, particularly in the energy sector; and (2) establishing rule-making authority in Asia to dominate the market and secure leadership. The following statements from industry-related publications illustrate these goals:

METI Ministers, GX Policy Officials, Keidanren Representatives: "Japanese coal-fired power technology is in demand, and its transition-related technologies are highly regarded globally. Thus, Japan seeks to demonstrate its solid position in the international community, particularly in Southeast Asia (Kajikawa, 2021; Kikkawa et al., 2019; Ohashi et al., 2022; The House of Representatives, Japan, 2023). " Furthermore, Keidanren and Keidanren Chairman comment: "To mainstream transition finance, Japan should exercise leadership in rule-making while collaborating with the United States and Asia. As part of an offensive economic diplomacy strategy, this includes capturing global green demand

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and supporting Asia (Keidanren, 2021; Tokura 2022).

MOE official: *"METI appears focused on securing the market in Asia to ensure that Japanese companies engaged in business there do not face financing challenges. This aligns with a desire to facilitate the smooth transition of Japanese suppliers (MOE official)."* These remarks underline METI's strategic focus on Asia's markets, aiming to bolster Japanese business competitiveness while shaping the regional financial and regulatory landscape to support transition finance.

Interviews reveal a clear consensus on the Japanese government's diplomatic strategy to utilize transition finance as a means to lead the Asian market while leveraging Japan's technology. For instance, "*The METI envisions Japan taking the lead in transition, thereby gaining leadership in Asia, which has similar industrial structures to Japan, and promoting the greening of developing countries while showcasing its technology (TF committee member)." "I agree with concluding that transition finance was chosen given to exporting Japan's technology to Asia on the diplomatic aspect (GX council member)." "I think Japan intends to support Asia's decarbonization efforts and is eager to acquire leadership (climate policy professor 2)."* Responses such as those mentioned here were obtained from all interviewees, indicating unanimous recognition among interviewees of the government's diplomatic goals.

A key institution facilitating the export of Japanese technology, particularly to Asia, is the Japan Bank for International Cooperation (JBIC). Fully owned by the Japanese government, JBIC supports the execution of Japan's foreign economic policy and complements the financial services provided by private institutions. While JBIC has issued green bonds (Japan Bank for International Cooperation, 2022), JBIC has faced longstanding criticism from domestic and international NGOs for its involvement in

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financing overseas fossil fuel projects.[26] One respondent remarked, *"JBIC shows no signs of scaling back. This is influenced by the interests of electric utilities and manufacturing companies (fund monitoring NGO)."* These comments underscore the close relationship between the Japanese government, JBIC, and pro-developmental actors within the GX policy framework.

Typically, diplomatic initiatives of this scale are led by the Ministry of Foreign Affairs (MOFA). However, MOFA's involvement in GX-related diplomacy appears minimal. This sentiment is echoed in responses such as, *"While former Foreign Minister Kono was proactive during the Suga administration, this has not been the case since then (fund monitoring NGO."* Another interviewee noted, *"MOFA is involved because it's diplomacy, but the Foreign Minister is not actively engaged so that MOFA's position was margined (MOE official)."* Similarly, a Keidanren representative observed, *"It is clear that METI leads GX and AZEC. Even summit meetings are METI-driven."* These responses indicate that METI, rather than MOFA, plays a central role in GX diplomacy.

6.2.2 The Asian Pathway vs the EU

To achieve this, it was deemed essential to use GX Transition Bonds to facilitate the expansion of GX initiatives into the Asian market (Keidanren, 2021a; Ministry of Economy, Trade and Industry, 2023c; Tokura, 2022). According to one respondent,

[26] Domestic NGOs have requested that the 50 overseas investment institutions that hold JBIC bonds engage with JBIC, as JBIC continues to provide significant support for new fossil fuel projects, and nine countries have expressed concerns about human rights violations about fossil fuel gas projects supported by JBIC (Fossil Free Japan, 2024; Japan Center for a Sustainable Environment and Society et al., 2024).

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"Transition finance is a critical concept. Japan has always aimed to establish it internationally, and the GX Transition Bond was envisioned from the start as a catalyst for this goal (GX institute official)." This underscores the deliberate use of transition bonds to underpin Japan's strategy.

Keidanren further emphasized Asia's unique pathway compared to Europe, stating, *"AZEC provides a crucial platform to communicate Asia's carbon-neutral pathway to the EU (Keidanren official)."* In response to criticism that promoting ammonia is prolonging the use of coal, *"AZEC is essential to advocate for the transition from ammonia mixed-firing to dedicated combustion in response to criticisms about coal extension (Keidanren official)."* This sentiment was echoed by a MOE official, who noted, *"The EU's approach doesn't account for Asia's political systems and diversity."* A GX committee member mentioned, *"Japan pays closer attention to transition finance compared to Europe, and it is more realistic. I guess many in Japan fundamentally believe it is the correct approach."* These responses highlight the widespread perception of transition finance as a pragmatic alternative.

Consequently, Japan's GX policy demonstrates a strategic focus on leveraging its technologies to establish leadership in Asia—a region that aligns with Japan's capabilities—rather than competing in the more advanced green finance markets of the EU. Katada (2022) highlights that Japan has increasingly relied on other Asian countries as a source of its economic growth. The study also reveals Japan's efforts to enhance its economic presence in the region, particularly through investment initiatives. This aligns with Japan's longstanding emphasis on Asia in its diplomatic efforts. One GX council member stated, *"Japan has placed greater emphasis on Asia since joining the Trans-Pacific Partnership (TPP) Agreement Negotiations under the Abe administration, and it*

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has grown stronger than ever."[27] This is further reflected in the continuation of the Free and Open Indo-Pacific Strategy (FOIP), originally proposed in 2017 under the Abe administration and maintained under the Kishida administration in 2023 (Ministry of Foreign Affairs, 2023a). Consequently, there was already a predisposition to prioritize Asia in Japan's diplomatic efforts. Considering the diplomatic strategies underpinning the GX policy, it becomes evident that promoting transition finance over green finance was essential for leveraging Japan's technological capabilities—capabilities that could not be fully realized through green finance—and for establishing leadership in Asia, a region more aligned with Japan's strategic priorities, rather than competing within the already green-oriented EU.

6.2.3 GX Strategy and China

Since 2013, Japan has been actively involved in the Trans-Pacific Partnership (TPP) negotiations, and this was with the aim of establishing leadership in response to China's rapid rise and its nationalistic economic strategy (Katada, 2022). As previously discussed, Japan's diplomatic strategy under the Kishida administration continues the Asia-focused approach initiated during the Abe administration. The interviewees and documentary sources indicate that Japan's strategy reflects both a desire to prevent China from

[27] The Trans-Pacific Partnership (TPP) Agreement was a high-standard, ambitious, comprehensive, and balanced economic partnership agreement negotiated among 12 countries: Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the United States, and Vietnam. It was signed in February 2016 in New Zealand. However, following the United States' withdrawal in 2017, the remaining 11 countries renegotiated the agreement, leading to the signing of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) in March 2018 (Ministry of Foreign Affairs, 2023b).

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dominating Asia and an effort to contain China by actively promoting GX policies across the region.

Testimonies: "I think there is a strong desire not to let China dominate Asia (climate policy professor 2)." "If we don't spread our coal-fired technology in Asia, China's technology exports will only continue to expand (Kikkawa et al., 2019)." "METI and MOFA are working in the same direction—strengthening ties with Southeast Asia to contain China. (MOE Committee member)"

Additionally, Japan, currently holding the largest market share in transition finance, appears to leverage this sector to secure regional leadership, particularly against China, which ranks second globally. For instance, the Asia Zero Emission Community (AZEC) comprises 11 countries (Japan, Australia, Brunei, Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand, and Vietnam), notably excluding China. Similarly, Chinese financial institutions are absent in the Asia Transition Finance Study Group (ATFSG)—a private-sector-led initiative.

In September 2021, the ASEAN+3 (the 10 ASEAN countries plus Japan, China, and South Korea) Ministers on Energy Meeting was held online with the aim of strengthening stable energy supply, energy security, and climate change measures. During the meeting, the plus three countries—Japan, China, and Korea—were encouraged to realize adequate financing support to ASEAN member countries (Ministry of Economy, Trade and Industry, 2021d). However, subsequent Japan-led initiatives, which were rapidly established following this meeting, notably excluded Chinese institutions. This exclusion further suggests Japan's intention to build an Asia-led cooperation framework separate from China's narrative, reinforcing Japanese regional leadership through its own GX policy, including utilizing transition finance.

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6.3 Consistency with Hypothesis 3

The evidence presented aligns with Hypothesis 3, which posits that Japan selected transition finance tailored to Asia to support its industrial sector while taking leadership in the region's green transformation. Additionally, Japan's emphasis on leveraging its technology—particularly in the energy sector—across Asia has been reiterated multiple times, connecting this aspect to Hypothesis 2. The findings also highlight Keidanren's substantial involvement in shaping these policies. Furthermore, Japan's industrial sector has expressed concerns over the EU, emphasizing the desire to operate under Asia-specific rules.

However, responses suggest a more nuanced relationship with the EU. One respondent noted, *"We are first building partnerships in Asia and communicating them to the EU, which has led to increased understanding among certain groups in Europe (TF committee member)."* Another remarked, *"Understanding of transition finance, including in Europe, has been expanding globally. It is only a matter of time before it becomes widely adopted worldwide (GX institute official)."* These insights indicate that Japan does not entirely view the EU as an adversary but instead seeks to balance its leadership in Asia with constructive engagement with Europe.

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Chapter 7. Discussion and Conclusion

This chapter comprehensively examines the interrelationships between the content and hypotheses presented in Chapters 4 to 6, as well as the mutual influences between the main argument and the policy outcome, which is to prioritize transition finance. Finally, it discusses the contributions of this study, implications for policy implementation, and directions for future research.

7.1 Consistency with Hypothesis, Argument and Outcome

This thesis has addressed the question of why Japan prioritizes transition over green in its sustainable finance. Therefore, it employs the process tracing method to analyze the domestic political economy and diplomatic strategies surrounding Japan's transition finance. This section validates the consistency of the three hypotheses with the central argument, which is "More powerful ministries and more powerful businesses formed a pro-developmental coalition to influence Japan's sustainable finance policy, resulting in the adoption of transition finance over the green."

Hypothesis 1 (H1) addressed the relationship between the MOE (pro-environmental actor) and METI (pro-developmental actor). The establishment of the Task Force was contingent upon the inter-ministry compromise and cooperation between these two entities, making this collaboration a necessary and sufficient condition for its formation. Furthermore, for the pro-developmental actor to gain an advantage in their subsequent competitive relationship, the support from the business sector, as outlined in Hypothesis 2 (H2), was a necessary condition. This indicates that H1 and H2 are interrelated and collectively form sufficient conditions for the creation of a pro-developmental coalition. Hypothesis 3 (H3) concerns Japan's diplomatic strategy for Asia,

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which aligns with its objectives in sustainable finance, addressing limitations inherent in green finance. Consequently, H3 represents a necessary condition for a pro-developmental coalition to choose transition finance.

Together, these three elements—(1) inter-ministry compromise and competition, (2) strong support from business associations, and (3) diplomatic ambitions for Asia—demonstrate that transition finance was selected as Japan's sustainable finance mechanism. This synergy highlights the importance of aligning domestic political dynamics with international strategic goals to achieve policy coherence. Figure 6-1 illustrates the relationship between the hypotheses and arguments of this thesis. Nonetheless, this analysis also uncovered the existence of distributive conflict within Keidanren. This internal division complicates the simplistic categorization of Keidanren as a purely pro-developmental actor, demonstrating that its stance reflects a spectrum of interests.

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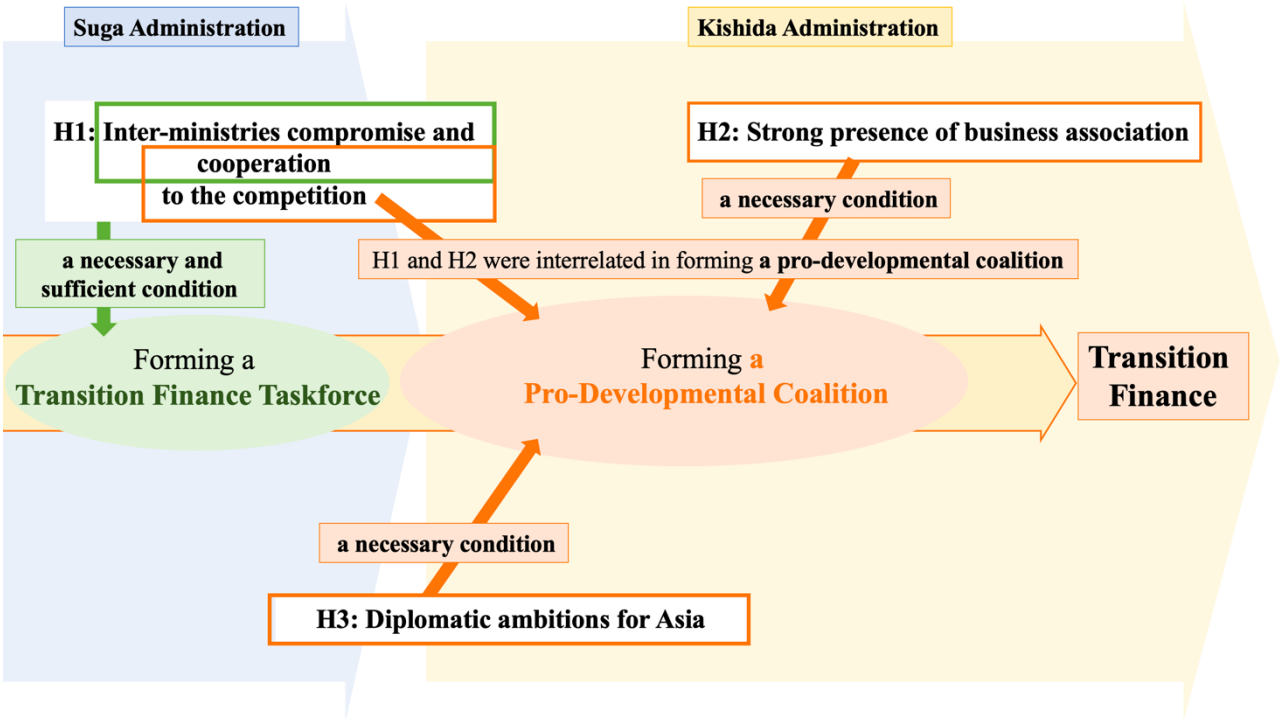
Figure 6-1. The Relationship between Argument, Hypotheses, and Distributive Politics



Source: Compiled by the author

7.2 Contribution and Policy Implementation

This study has explored the question of why Japan prioritizes transition finance over green finance. Empirical studies on transition finance have been scarce, making this research a valuable addition to the existing literature. By providing a political-economic analysis, this thesis offers a narrative on the market formation process and driving factors behind transition finance, making a significant contribution to sustainable finance research. Moreover, analyzing Japan's transition finance—a market with substantial size and robust policy support—offers insights that can inform future research on transition finance, particularly as it gains momentum across Asia.

Furthermore, this section also examines the theoretical contributions of this thesis.

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Firstly, in terms of political economy, previous literature has categorized interests into pro-environmental or anti-environmental reform interests (Aklin & Mildenberger, 2020) and climate-forcing assets or climate-vulnerable assets (Colgan et al., 2021). However, within the Japanese context, the characteristic of a eco-developmental state suggests the inclusion of pro-developmental actors or pro-environmental actors alongside the existing classification. Moreover, while business-centric discussions have prevailed in political economy, there remains a dearth of research on how governmental agencies and businesses collaborate to form coalitions and exert influence. Therefore, this study provides insight of government-business collaboration development, addressing the gap in the present research area. In the narrative of political economy, the focus on distributive politics in domestic politics has often resulted in limited observation of its connection with foreign policy. However, this thesis suggests that Japan's foreign strategy in transition finance also influences its distributive politics.

Regarding the eco-developmental state narrative, little attention has been given to the dynamics of climate policy where the brown sector strategically supports green initiatives. On that point, therefore, it made a notable contribution. Furthermore, in the realm of green economic diplomacy, often referred to as the developmental state's external policy, while the incentives have been established, there has been limited research on the domestic political economy's impact, underscoring the significance of this thesis. The primary contribution of this study lies in providing a political-economic analysis of Japan's sustainable finance research. It also offers Japan's narrative regarding the market formation process and driving forces of transition finance, which remains underexplored in global transition finance studies.

This study also highlights that Japan's policy-making process often reflects a

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limited range of voices. This issue has been repeatedly emphasized in prior environmental policy research and was similarly noted by interviewees. One environmental INGO representative remarked, *"I question whether the councils for the Basic Energy Plan truly reflect public opinion. There is also a lack of transparency in selecting committee members."* An energy policy advocacy NGO echoed this sentiment, stating, *"Government councils essentially choose people they favor."* These perspectives suggest that the same exclusionary tendencies persisted in the decision-making process for GX policies and transition finance. Given these findings, it is imperative that the Japanese government and the ruling coalition address biases in committee member selection. They should recognize the significance of the numerous statements issued by Japanese NGOs, which often collaborate with international NGOs, and invite a more diverse range of stakeholders to councils and study groups, expanding representation beyond Keidanren and corporate interests.

Raising public awareness is also critical to achieving these goals. As noted by interviewees: *"There is no political leadership in Japan to drive environmental policy, which is so laxly led by the METI because there is little public interest (governmental financial center)."* Another respondent observed, "*Without changes in public awareness, there won't be supply-side incentives (GX Institute official)."* Therefore, fostering collective efforts by the government, businesses, and NGOs to raise awareness and support for environmental policies is essential. This requires creating an enabling environment that encourages such activities.

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7.3 Limitation and Future Study

This study analyzed distributive politics within the newly developed framework of pro-developmental and pro-environmental actors in alignment with the political economy narrative. While it offered insights into these dynamics, its contribution to the policy evolution typologies outlined by Colgan et al. (2021)—Flipping, Realignment, and Strategic Repositioning—remained limited. Additionally, while changes in the leadership of both the Prime Minister and Keidanren were observed to influence policy directions, these aspects were not deeply integrated into the theoretical framework of this study.

For future research, one promising avenue is to investigate how changes in the balance of power between ruling and opposition parties in Japan influence the distributive politics between pro-developmental and pro-environmental actors. In the October 2024 House of Representatives election, the ruling coalition of the Liberal Democratic Party (LDP) and Komeito lost their parliamentary majority, with the LDP suffering a significant defeat (NHK, 2024). This marked the first time in 15 years that the ruling coalition failed to secure a majority, sending shockwaves through the ruling parties and causing instability in financial markets (Kiuchi, 2024b). Given this shift, the government is now expected to seek greater cooperation with opposition parties to advance GX policies.

The Constitutional Democratic Party of Japan (CDP), which emerged as the largest opposition party, has historically shown a strong commitment to environmental policies.[28] NGOs have expressed optimism about the potential impact on broader

[28] Interviews also revealed insights such as: *"When the Democratic Party split, relatively environmentally conscious lawmakers gravitated toward the Constitutional Democratic Party (CDP). Conversely, those supported by the Federation of Electric Power, who are even more conservative on*

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environmental initiatives. Notably, the CDP has set ambitious energy goals, such as achieving 50% renewable energy generation by 2030 and 100% by 2050, aiming for carbon neutrality without reliance on fossil fuels or nuclear power (The Asahi Shimbun, 2024). These goals significantly exceed the 36–38% renewable energy target for 2030 outlined in the GX Basic Policy (Cabinet Secretariat, 2023). Additionally, the Democratic Party for the People (DPP) has also committed to achieving carbon neutrality and 100% renewable energy as early as possible(Nikkei, 2024c).

Takenaka (2017) examined the continuity of policies during the transition from the Liberal Democratic Party (LDP) to the Democratic Party of Japan (DPJ) administration from 2001 to 2015. The study demonstrated that, in Asian diplomacy, there were no substantive differences in policy content regardless of the change in administration. Furthermore, it highlighted that in the area of power system reform, policies not only continued in the same direction but also evolved further. Given the existence of such studies, future research could explore how the ruling coalition's loss of a majority impacts the coalition of pro-developmental actors, and whether new distributive politics between pro-developmental and pro-environmental actors emerge. Specifically, research could examine whether these dynamics lead to realignment in current policies, particularly concerning the expansion of renewable energy.

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environmental issues than the Liberal Democratic Party, ended up joining the Democratic Party for the People (DPP). As a result, the CDP became a party with a higher concentration of progressive individuals on environmental matters (climate policy professor)."

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Appendix

Appendix 1. The Interview Guide

Background and Strategy of Japan's Promotion of Transition Finance

Abstract

Despite the presence of green finance initiatives (such as green bonds) since 2017, the Japanese government has chosen to issue and promote GX Economic Transition Bonds as transition bonds under its GX Promotion Strategy to achieve carbon neutrality by 2050. While five out of the G7 countries have issued green bonds as sovereign bonds, Japan became the first country in the world to issue transition bonds as sovereign debt.

Given this context, this study seeks to address the question: "Why has the Japanese government prioritized transition finance over green finance, despite the potential for international criticism?" To answer this question, the research analyzes the policy-making process through the lens of distributive politics, examining how resource allocation dynamics have influenced Japan's policy choices.

Interviewer Information and Potential Risks

Yukino Kobayashi is a Master's student at the Graduate Institute of National Development at National Taiwan University. Her research interests include environmental policy, international relations, international political economy, industrial organizations, and NGOs. This interview is used for her master's thesis.

You are free to decide whether to participate in this study, and you can withdraw your

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consent or leave the study at any time during the process without any reason. The person in charge of the research project will, according to the law, treat any record that can identify you and your personal privacy information as confidential, and will never disclose it. When the research results are published in the future, your identity will be fully protected.

INTERVIEW ITEMS

H1: Inter-ministries compromise and cooperation to competition

1. Has there been any conflict between the Ministry of the Environment (MOE) and the Ministry of Economy, Trade, and Industry (METI) in the context of sustainable finance policy? What are their preferences?
2. What was the nature of relationship between the MOE and the METI in promoting transition finance?
3. What was the nature of r relationship between the MOE and the METI during discussions on GX economic transition bonds within the GX policy framework?
4. Why was the original plan to include both green and transition bonds in GX economic transition bonds ultimately narrowed down to only transition bonds?
5. why did the MOE, despite its conflicting environmental policy preferences with the METI, collaborate with them to endorse transition finance, which is internationally criticized, rather than green finance?
6. Why has the METI now arranged a framework for transition finance with the MOE, while they have not previously collaborated with the MOE on sustainable finance initiatives?

H2: Strong presence of business association

1. Do domestic politics and industry perceive that Keidanren's voluntary action plan has strengthened Keidanren's influence in Japan's environmental policy today?

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2. Why, despite opposing environmental taxes, ETS, and taxonomy in the past, is Keidanren now actively promoting transition finance and GX policies? 3. What are the opinions within Keidanren regarding transition finance? Do some sectors especially support or oppose the promotion of transition finance? 4. Do you think changes in Keidanren's chairmanship affect Keidanren's policy preferences, such as environmental policies? 5. What is the nature of the relationship between organizations like JCLP, The Japan Climate Initiative, which are actively engaged in environmental policy, and Keidanren?
H3: Diplomatic ambitions for Asia
1. Do you think that the Japanese government has chosen transition finance rather than green finance in order to incorporate finance that can take advantage of Japan's technological strengths in terms of diplomacy? 2. Do you think that Japan chose transition finance in order to take the lead in shaping the rules for greening in Asia? 3. After the experience of the Kyoto Protocol, is the Japanese government (especially METI) wary of EU-led environmental policies? 4. What do you think are the diplomatic reasons for the Japanese government to promote transition finance?
General Questions Throughout
1. What influence did former Prime Minister Suga's carbon neutral declaration exert on environmental policy and sustainable finance policy? 2. Have there been any changes in the plans regarding GX economic transition bonds since the transition from the Suga administration to the Kishida administration? 3. Did the change in government to the Kishida administration bring about any changes in

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environmental policy? And if so, what were they? 4. How does the Japanese government and industry perceive international criticism of transition finance? 5. What are the opinions of environmental NGOs regarding transition finance, and how influential are they?

Appendix 2. The Contents of Interview Items in Japanese

H1: Inter-ministries compromise and cooperation to the competition
1. サスティナブルファイナンス政策では、MOE と METI の間で、これまでに見られたような対立関係があったか。彼らの嗜好は如何なるものか。 2. トランジションファイナンスを推進するに至って、MOE と METI はどのような関係性であったか。 3. GX 政策のなかの GX 経済移行債の討論の中で MOE と METI はどのような関係性であったか。 4. GX 経済移行債において、なぜもともとグリーンとトランジションボンドを含む予定であったのが、最終的にはトランジションボンドのみになったのか。 5. 環境省はなぜ、これまで環境政策に反対してきた経産省と協力し、グリーンボンドより国際的に批判されているトランジションボンドを受け入れたのか。 6. 経産省はなぜ、これまでサスティナブルファイナンスにおいて環境省には協力関係になかったのが、今になって、環境省とともにトランジションファイナンスの枠組みを作ることになったのか。 7. 菅前総理のカーボンニュートラル宣言は環境政策、サスティナブルファイナンス政策において、どのような影響力を発揮したか。

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8. 岸田内閣への政権交代は、既存の環境政策に変化をもたらしたか。また、それはどのようなものか。 9. 菅政権から岸田政権へ変わってから、GX 経済移行債における計画に変更はあったか。
H2: Strong presence of business association
1. 経団連の自主行動計画が成功したとの国内政治、産業界の認識は、日本の環境政策において経団連の発言力を強めたと思うか。 2. 環境税や ETS、タクソノミーに反対していた経団連は、なぜここにきて、トランジションファイナンス、GX 政策をこれほど積極的に推進するのか。 3. 経団連内部において、トランジションファイナンスに対する意見は如何なるものか。特別賛成、または反対している産業はあるか。 4. 経団連における会長の変化は経団連の政策嗜好に変化を与えると思うか。 5. 日本では JCLP や The Japan Climate Initiative などが環境政策において積極的に活動しているが、彼らと経団連の関係は如何なるものか。
H3: Diplomatic ambitions for Asia
1. 日本政府は外交面において、日本の技術的強みを活かせるファイナンスを取り入れるべく、グリーンではなく、トランジションファイナンスを選択したと考えるか。 2. 日本がアジアにおけるグリーン化のルール形成において主導権を握るため、トランジションファイナンスを選択したと考えるか。 3. 京都議定書の経験を経て、日本政府（特に経産省）は EU 主導の環境政策に対して警戒心を抱いているか。 4. 日本政府がトランジションファイナンスを推進する外交理由は何であると考えるか。

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その他全体を通して
1. 岸田内閣への政権交代は、環境政策に変化をもたらしたか。またそれはどのようなものか。 2. 日本政府、産業界は、国際的なトランジションファイナンスに対する批判に対して、どのように受け止めているのか。 3. 環境 NGO のトランジションファイナンスに対する意見は如何なるものか。また、その影響力はどれほどのものであるか。

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