CHINA’S SHIFTING POSITION IN THE GLOBAL CLIMATE CHANGE

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CHINA'S SHIFTING POSITION IN THE GLOBAL CLIMATE CHANGE

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China’s Shifting Position in the Global Climate Change

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DECLARATION OF ORIGINALITY

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ABSTRACT

China’s Shifting Position in the Global Climate Change

Over the past two decades, China has emerged as a rising economic power with excessive amounts of carbon emissions that directly contribute to global climate change. Being a part of the international regime for global climate change regime, the country has also pursued a different set of policies to address the issue both domestically and internationally. This is also apparent in China’s vast investment landscape. The country has shown shifting patterns from a fossil-oriented investor to a more climate-friendly one. Also, it has proactively engaged in the regime's institutional platforms and revealed strong signals to cooperate on this global issue. This thesis aims to answer why China decided to move in such a direction and showed shifts in its investment allocation preferences by contextualizing foreign investments between 2005 and 2022. In contrast to the arguments based on liberal institutionalism and regime theory, China’s moves can be better attributed to realist considerations and strategic calculations within the scope of its incentive structure. This consists of economic gains and reputational benefits, both of which led China to increase its relative gains and reduce international pressures. From energy and transport investments to positioning in international negotiations, several cases are presented to demonstrate how China operationalizes its incentive structure. Combining climate change with some prominent international relations theories, this thesis contributes to an interest-based understanding of China’s climate policies and places them into a broader context of an incentive structure framework.

ÖZET

Çin’in Küresel İklim Değişikliği Konusundaki Değişen Pozisyonu

Son yirmi yılda Çin, küresel iklim değişikliğine doğrudan katkıda bulunan aşırı miktarda karbon salınımı olan yükselen bir ekonomik güç olarak ortaya çıktı. Küresel iklim değişikliği rejimi için uluslararası rejimin bir parçası olmanın yanı sıra, ülke soruna hem yerel hem de uluslararası düzeyde çözüm bulmak için farklı bir dizi politika izledi. Bu durum, Çin'in geniş yatırım alanındaki görünümünde de açıkça ortaya çıkıyor. Ülke, fosil yakıt odaklı yatırımcıdan daha iklim dostu bir yatırımcıya doğru değişen bir eğilim gösterdi. Ayrıca, rejimin kurumsal platformlarına proaktif bir şekilde dahil oldu ve bu küresel konuda işbirliği yapmaya yönelik güçlü sinyaller verdi. Bu tez, 2005 ile 2022 arasındaki yabancı yatırımları bağlamsallaştırarak, Çin'in neden böyle bir yöne hareket etmeye ve yatırım tahsis tercihlerinde değişiklikler göstermeye karar verdiğini yanıtlamayı amaçlamaktadır. Liberal kurumsalcılık ve rejim teorisine dayalı argümanların aksine, Çin'in hamleleri, teşvik yapısı kapsamında gerçekçi düşünceler ve stratejik hesaplamalara daha iyi bağlanabilir. Bu, ekonomik kazanımlar ve itibari faydaların ikisini de içermektedir ve Çin'i göreceli kazançlarını artırmaya ve uluslararası baskıları azaltmaya yönlendirmiştir. Enerji ve ulaşım yatırımlarından uluslararası müzakerelerdeki pozisyona kadar, Çin'in teşvik yapısını nasıl işlenir hale getirdiğini göstermek için çeşitli örnekler sunulmaktadır. İklim değişikliğini bazı önemli uluslararası ilişkiler teorileriyle birleştirerek, bu tez, Çin'in iklim politikalarına ilgi temelli bir anlayış katkısı yapar ve bunları bir teşvik yapısı çerçevesinde daha geniş bir bağlama yerleştirir.

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ABBREVIATIONS

APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
BRI	Belt and Road Initiative
BRICS	Brazil, Russia, India, China, and South Africa
BRIGC	Belt and Road Initiative International Green Development Coalition
CCP	Chinese Communist Party
CDM	Clean Development Mechanism
CMA	China Meteorological Administration
COP	Conference of Parties
CPEC	China-Pakistan Economic Corridor
GHG	Greenhouse Gas
IEA	International Energy Agency
IPCC	Intergovernmental Panel on Climate Change
IRENA	International Renewable Energy Agency
MoST	Ministry of Science and Technology
MTCR	Missile Technology Control Regime
NDC	Nationally Determined Contribution

NDRC	National Development and Reform Council
NSCCCC	National Coordination Committee on Climate Change
OECD	Organization for Economic Cooperation and Development
SCORES	State Council Office for Restructuring the Economic System
SDPC	State Development Planning Commission
SEPA	State Environmental Protection Administration
SETC	State Economic Trade Commission
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNSC	United Nations Security Council
WTO	World Trade Organization

CHAPTER 1

INTRODUCTION

1.1 Scope and Objectives

China's rapidly developing economy has positioned the country as a rising actor with a rapidly increasing carbon emissions record. Due to domestic economic activities and foreign investments, China has become the country with the highest global emissions Carbon Project, 2021). As a party to the global climate change regime that emerged with the United Nations Framework Convention on Climate Change (UNFCCC) in 1992, China was classified in the non-Annex I group as a developing country. Environmental problems resulting from international pressure and uneven economic growth have been a major challenge for China over the past three decades. Dependency on fossil fuels and environmental risks in the investment landscape have been a source of criticism. China has consistently participated in Conference of Parties (COP) meetings held annually under the UNFCCC and declared its own Nationally Determined Contribution (NDC) at COP15 in 2015, committing to reaching a carbon peak by 2030 and carbon neutrality by 2060 (UNFCCC, 2021).

Over the past thirty years, China's journey in global climate change has shown not only stability but also dynamism and change, influenced by various factors. With the announcement of the Belt and Road Initiative (BRI) in 2013, China set a goal to spread its foreign investments starting from its neighbors in the Asia-Pacific and expanding towards African countries. In 2016, Chinese President Xi Jinping announced the goal of greening the BRI to make it environmentally friendly and sustainable. Before this date, there were slight instances that shows the shift

toward climate-friendly investments in China's external investment branches, with a focus on transitioning from fossil fuels to alternative energy sources in the energy sector and taking a global leadership role in renewable energy production. This strategy has been demonstrated by the development of investment strategies in sustainable infrastructure and metal sectors, as well as leadership in the electric vehicle market for transport. In 2014, China and the US joined forces and announced joint goals, bringing together the world's two largest emitters. At COP negotiations, China has been relatively inactive in terms of financial support and concrete commitments, positioning itself as a developing country. However, it has led proactive initiatives by leading the G77 countries. Normative value sets such as the Scientific Outlook on Development and the Harmonious Society, which address issues arising from China's rapid transition to a market economy, have also begun to address climate and environmental issues. China has played two fundamental roles in this long trajectory: firstly, as an internationally active country with a rapidly developing economy, and secondly, as a member of the global climate change regime.

This thesis aims to explore the underlying motivations that have driven China's shifts towards climate-friendly foreign investments. To achieve this objective, a comprehensive dataset covering the period from 2005 to 2022 with the sectoral distribution of China's foreign investments, including the BRI, will be analyzed to contextualize this shift. This long and changing story will be interpreted in terms of explanations based on realism liberal institutionalism, regime theory, two-level game perspective, and constructivism.

1.2 Main argument

The observed shift in China's foreign investments is a result of the overlap between a set of interest motivations that can be termed an incentive structure and the expectations of the global climate change regime. In the event of a conflict between these two sets, China has not taken action regarding investment, funding, and climate policy commitments. The incentive structure comprises two fundamental elements, namely economic gains and reputational returns. Thus, the key driver of this shift is the emergence of an incentive structure dominated by realist considerations.

1.3 Research design and methodology

To comprehend the driving forces behind China's shift in foreign investment from environmentally destructive practices to climate-friendly investments, a data-based analysis was conducted. To accomplish this, the foreign investment data compiled by China between the period of 2005-2022 was cleaned and organized. The only available dataset started in 2005, therefore this timeframe was adopted for analysis. The data was sourced from the American Enterprise Institute and was freely accessible.

The raw dataset lacked proper categorization, prompting the need to clean and reorganize the list according to the following criteria: year, sector, sub-sector, number of investments, and value of investments. The aim was to enable a clearer representation of the data through the use of line graphs and pie charts, which allowed for the inclusion of linear trends for each of the examined sectors and sub-sectors. Additionally, statistics on Clean Development Mechanism (CDM) projects

were compiled by searching the UNFCCC's online database for the year and number of projects undertaken.

After examining the distribution of China's foreign investments across various sectors, it becomes apparent that the energy, transportation, metals, and real estate sectors hold a dominant position, constituting approximately 72% of the total investment volume. These sectors are also closely linked with significant emissions production, as indicated in the IPCC's 2014 report. Specifically, the energy sector is responsible for 25% of emissions through electricity and heat production, while transportation contributes 14%. Additionally, residential and commercial construction is responsible for 11.5% of emissions, while the metal sector is associated with varying emission factors depending on the type of metal production and processing. Based on this information, I have selected these four sectors as the primary focus of discussion when examining the topic of foreign investment.

In analyzing the shifts observed in investments across sectors, I considered the number of investments made rather than the total investment volume in dollars or yuan. The primary rationale behind this approach is that the amount of an investment cannot always serve as a decisive factor. For instance, three or four projects in the field of alternative energy may sometimes be equivalent to the expenditure made on a project related to fossil fuels. From this perspective, the money spent on an alternative energy project could be only one-quarter of the investment made in oil, but this would not provide us with a reliable indicator. When an investment is made in fossil fuels while there are three or four investments in alternatives, this demonstrates a significant shift. Therefore, my selection criterion in sectoral analysis is primarily based on the number of projects.

To further augment the analysis, official documents from China's CCP party congress, which were available in English, were also utilized. In addition, relevant scientific knowledge on the subject was obtained through the use of datasets from reputable sources such as the Intergovernmental Panel on Climate Change (IPCC), the International Renewable Energy Agency (IRENA), the International Energy Agency (IEA), and the Global Carbon Project. These datasets provided critical information on emission records, generation capacities, and other essential factors necessary to support the research. These references were chosen accordingly by considering the most updated information. To examine how China has engaged in the global climate change regime, I conducted a historical analysis.

1.4 Overview of chapters

Chapter 2 will provide an analysis of the shifts that have occurred in the sectoral distribution of foreign investments in China between 2005 and 2022. This chapter will employ a variety of visual aids, including pie charts, line graphs, and bar graphs, to illustrate the distribution of investments across four key sectors: energy, transport, metals, and real estate. These sectors represent China's primary investment priorities and also have a significant impact on carbon emissions. The chapter will focus in particular on the energy sector, which has undergone more pronounced shifts and has a more contribution to carbon emissions. The sub-sectors of oil, coal, natural gas, and alternative energy within the energy sector will be discussed in greater detail.

Chapter 3 will provide an in-depth analysis of the theoretical frameworks that are relevant to understanding China's position in the context of global climate change. Specifically, this chapter will explore the theoretical paradigms of realism, liberal

institutionalism, regime theory, two-level game, and constructivism. After introducing the fundamental principles of each of these theoretical perspectives, the chapter will examine how they approach the issue of climate change more broadly and how they provide explanations for China's changing position in particular. The chapter will focus on identifying the key drivers that have contributed to China's shift in stance, and it will also examine how this shift is situated within the broader international system. By analyzing these theoretical perspectives in depth, this section will offer insights into the underlying factors that have shaped China's climate change policies and its evolving role in the global response to climate change.

Chapter 4 will offer a regime-actor interaction analysis based on the principles of liberal institutionalism and regime theory. The chapter will begin by providing a historical overview of China's engagement with the international regime for global climate change, highlighting key milestones and developments that have shaped its approach to this issue. The chapter will then examine how regime-actor interaction has manifested itself in the observed shifts in China's foreign investment allocation, its cooperation with the United States on global climate change, and its shifting domestic institutional structure and normative foundations. By applying the analytical lens of liberal institutionalism and regime theory, the chapter will offer a nuanced interpretation of these developments and shed light on the underlying factors that have driven China's changing behavior in this arena. The ultimate aim of this chapter is to present a perspective on China's stance on global climate change that is grounded in the theoretical frameworks of liberal institutionalism and regime theory. This will provide a counterpoint to the explanation offered in the following chapter, which will examine the issue from a different theoretical perspective.

Chapter 5 aims to provide a counterargument to the previous chapter's analysis by examining China's performance in the context of realist considerations and calculated actions. The chapter will explore how regime expectations and the incentive structure have intersected to produce both action and inaction on China's part. Specifically, the chapter will focus on several key areas, including China's investments in the BRI its participation in CDM its engagement with financial mechanisms for climate funding, its cooperation with the United States on climate change, its investments in transportation infrastructure, and its negotiation positions at the COPs regarding the Loss and Damage Fund. Through an analysis of these areas, the chapter will demonstrate how economic gains and reputational returns have shaped China's decision-making and actions in the climate change regime. The chapter will argue that the incentive structure, rather than liberal institutionalist or regime-based considerations, is the primary driver of China's observed shifts in foreign investments and related positioning in the global climate change arena. This chapter is particularly important because it provides a realist perspective that challenges the liberal institutionalist and regime-based explanations presented in the previous chapter. By highlighting the importance of economic considerations and strategic calculations, the chapter offers a more nuanced and comprehensive understanding of China's position in the international response to climate change.

Chapter 6 serves as the conclusion of the thesis, reiterating the primary argument regarding the importance of the incentive structure in shaping China's behavior and observed shifts in foreign investments. The chapter will summarize the key findings and arguments presented in the previous chapters, emphasizing the central role of economic considerations and strategic calculations in China's approach to global climate change. The chapter will also reflect on the limitations of the study,

acknowledging potential gaps in the data or theoretical frameworks used. Furthermore, the chapter will highlight potential avenues for future research, suggesting areas where additional analysis could further illuminate China's behavior in the global climate change regime. Overall, the chapter will provide a comprehensive and succinct summary of the thesis's main argument and findings, as well as acknowledge the limitations and potential for further research in this area.

CHAPTER 2

DESCRIBING THE SHIFT

To begin a comprehensive analysis of China's shifting position regarding global climate change, it is essential to first examine the sectoral distribution of its investments. The examination of such data is crucial in understanding China's foreign investment trends and can provide valuable insights into the country's investment priorities that went in parallel with its climate policies over the years. To put it differently, China’s investment diversification offers an analytical lens through which its shifting position in the climate change regime can be observed. The American Enterprise Institute's China Global Investment Tracker presents an extensive dataset containing all available information regarding China's foreign investments. The dataset includes details on investment amounts, transaction parties, countries, sectors, and sub-sectors, covering the period from 2005 to the end of 2022. These data date back to 2005 at the most. By analyzing this comprehensive dataset, it is possible to gain an understanding of the sectors and industries that have received the most significant investments from China over the last decade and a half. This information can help contextualize China's actions in the fight against global climate change, as it provides insights into the country's economic priorities and policy decisions. Furthermore, the examination of the sectoral distribution of China's investments can offer a glimpse into the country's approach to making its investment landscape more climate-friendly or more harmful over the years.

Before delving into the analysis, it is imperative to highlight three points. Firstly, sectors that hold a significant position in the assessment of spending

allocation patterns are scrutinized in light of reports furnished by the Intergovernmental Panel on Climate Change (IPCC). The reason for this is the IPCC's acknowledged position as an epistemic community that comprehensively addresses the scientific aspects of climate change within the ambit of the global climate change regime. Secondly, given the coverage of the dataset, spanning from 2005 to the end of 2022, pie charts, line graphs, and bar graphs have been prepared to present years, sectors, and subsectors. The categorization of these graphs was done based on the total monetary disbursement (in millions of USD) or the number of projects specific to a sector, illustrating changes over time. Thirdly, one crucial consideration when analyzing energy investments over time is the impact of the COVID-19 pandemic, particularly in the production and service sectors (Hayakawa, 2022). Notably, between 2020 and 2022, there was a decline in China's foreign investments in all sectors.

2.1. Sectoral distribution of foreign investment spending

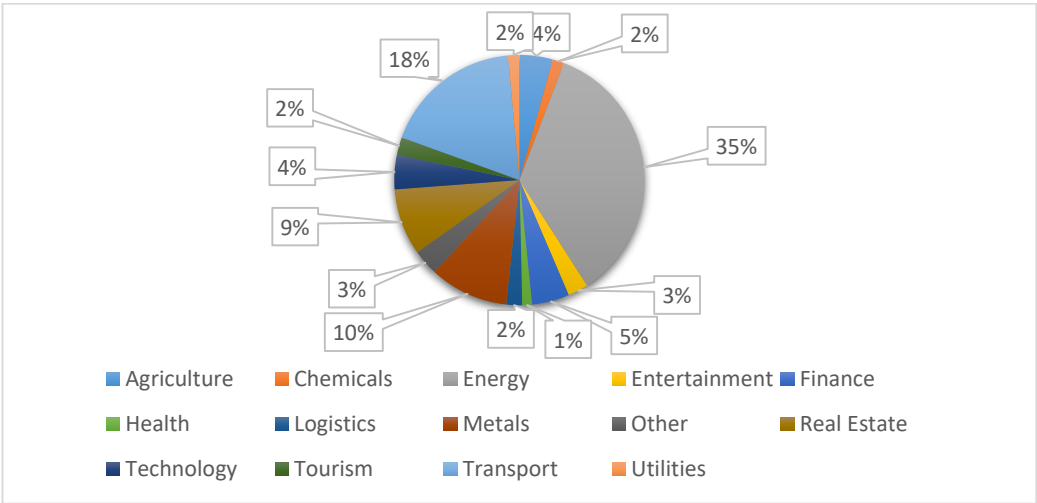

Figure 1. Sectoral distribution of China's foreign investments

[The American Enterprise Institute, 2022]

The sectoral distribution of China's foreign direct investment flows (millions of USD) from 2005 to 2022 is depicted in Figure 1. The figure reveals that energy investments have received the highest priority, accounting for 35% of the total spending. This observation is of particular importance because greenhouse gas (GHG) emissions resulting from energy generation are a major contributor to global climate change (Moomaw et al., 2011). In this context, it is imperative to underscore the significance of examining the heterogeneity of investments within the energy sector. The transition from fossils to renewables involves a paradigm shift in China's energy industry, necessitating substantial financial investments. In light of the country's significant fossil fuel dependence, it is imperative to allocate resources toward renewable energy sources to meet energy demands sustainably. Given this context, it is critical to analyze how China's investments in the energy sector have evolved and identify patterns that may provide valuable insights into the country's transition progress throughout its vast investment landscape. As part of this investigation, attention must be paid to the investment priorities of China's energy sector during the period between 2005-2022. In particular, investments in fossil fuels must be scrutinized in comparison to renewable energy sources such as wind, solar, wave, hydro, and biomass. This comparison would reveal the country's efforts in transitioning to cleaner energy sources and provide insights into the efficacy of such efforts.

The energy sector holds the highest investment priority, followed by transport, which accounts for 18% of total investments. Notably, transport is responsible for 16.2% of global greenhouse gas emissions, with 73% of these emissions attributed to road transport (Ritchie et al., 2020). Given this, however, it is not appropriate to make immediate conclusions regarding the environmental impact

of investments. Even if transport investments rank second in China's total investment expenditures, the distribution within the transport sector must also be considered. For this purpose, it is essential to acknowledge the significant contribution of transport to global GHG emissions, particularly from automobiles.

The third sector in China has allocated significant investments in the metals industry, particularly in the production of steel, aluminum, and copper. The manufacturing and operational processes of each metal have distinct levels of influence on greenhouse gas emissions. Additionally, metals are crucial raw materials for constructing alternative energy infrastructures. Consequently, one cannot directly assert that metal investments in China's foreign investment landscape lead to increased emissions over time. To have a better understanding, a more comprehensive discussion of the implications of sectoral metal investments by China is presented in the subsequent section.

The real estate sector held the fourth position in China's foreign investments during the period from 2005 to 2022. The sector's dataset encompasses two sub-sectors: construction and property investments. The construction sector, in particular, holds significant implications for global climate change due to its contribution to greenhouse gas emissions. As reported by the IPCC in 2014, the construction sector accounted for 19% of total GHG emissions in 2010. Recent data published by the International Energy Agency (IEA) has revealed that 8% of carbon emissions originate from fossil fuels used in buildings, 19% is attributed to the production of heat and electricity, and 6% stems from building materials such as cement and iron derivatives (IEA, 2022. Investments in the real estate sector not only have direct but also indirect impacts on global climate change. This is primarily due to the sector's association with emission factors resulting from electricity and heat consumption

during construction, as well as the usage of buildings thereafter. In the relevant section, I will delve into the historical evolution of investments in the construction and property sub-sectors and endeavor to provide an overview of the changes that have transpired within this sector over time.

2.2 Distribution of energy foreign investment spending

It is noteworthy that not all energy investments contribute equally to climate change. A critical aspect to consider is the extent to which coal, oil, and natural gas, commonly known as fossil fuels, are prevalent in such investments. By examining the breakdown of energy investments across sub-sectors, as depicted in Figure 2, it is observed that coal investments constitute 14% of the total, while oil investments account for 31%, and natural gas investments comprise 18%. Additionally, investments that incorporate both oil and gas represent 3% of the total. An example of such a mixed investment is the acquisition of Grenadier Energy Partners' oil and gas assets in the US by the Chinese firm Yantai Xinchao for $420 million in 2021. In general, fossil fuel investments constitute a significant majority of the total energy investment expenditure, amounting to 66%.

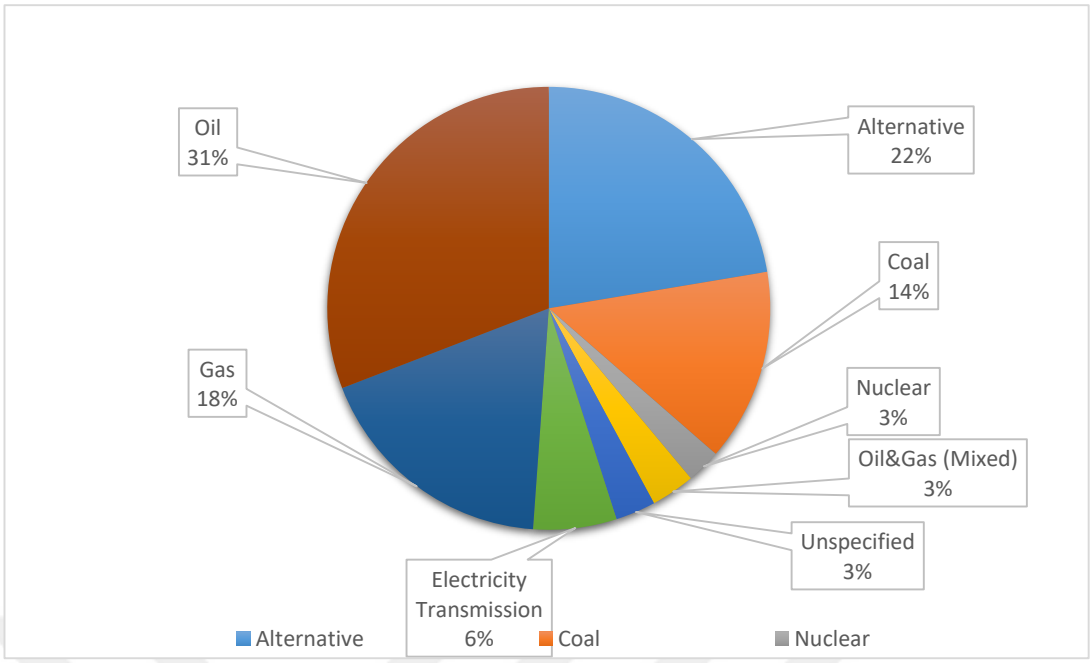

Figure 2. Sub-sectoral distribution of energy investments

[The American Enterprise Institute, 2022]

This high level of investment in fossil fuels underscores China's role as a major contributor to global climate change. In contrast, the alternative energy sector represents the second-largest investment area. The IPCC (2021) emphasizes the importance of investing in renewable energy transition as a critical component of a comprehensive climate change mitigation plan.

It is worth noting that the period between 2005-2022 is characterized by a complex interplay of China's domestic climate policies and its relationship with the international climate change regime, thus making it difficult to apply a single categorization. This period is punctuated by a multiplicity of domestic and international drivers, each of which is simultaneously affecting China’s positional shift in its climate policies over time (He, 2010; Mukhia, 2018). Hence, it is crucial

to not solely concentrate on the distributional patterns of foreign investments but to also evaluate the evolution of investment priorities over time. To this end, I have classified the available dataset and generated graphs depicting the distribution of investments in the energy and transport sectors from 2005 to 2022. Analyzing the evolution of investments in sub-sectors in line with China's involvement in the global climate change regime through diplomatic negotiations and national plans and programs is vital in comprehending the shifts that have occurred over the years.

2.2.1 Transition from fossil fuels to alternative energy

During the period spanning from 2005 to 2022, as indicated by the dataset, the number of investments made in coal, oil, and gas displayed a non-constant pattern and varied over time. It is pertinent to highlight that foreign investments in the energy sector have been on the rise over the years. Notably, there was a significant increase in investments across all sectors after President Xi Jinping initiated the BRI in 2013. Figure 3 exhibits a time-series graph elucidating the temporal trends in both numerical and percentage variations of energy foreign investments. It aims to discern the presence of any notable shifts by analyzing the changes in the number of investments in coal and oil, natural gas, and alternative energy within the period spanning from 2005 to 2022. Most importantly, it showcases the fluctuations in the percentage weights of these three categories relative to the overall energy investments. During the interval from 2014 to 2016 until 2020 to 2022, the share of foreign investments in coal and oil in the total energy investments demonstrated a lower magnitude compared to that of alternative energy. This inclination toward prioritizing alternative energy is evidenced by the observed shift in investment

weights toward the alternative energy sector. This period coincides with the time when the NRDC launched the goal of greening the BRI in 2016.

The International Energy Agency's (IEA) most recent report highlights a rising trend in China's capacity to generate electricity from alternative energy sources (IEA, 2022). This trend extends beyond electricity production to heating and biofuel generation as well. Consequently, it is feasible to suggest that China is experiencing a shift in its national energy landscape, in addition to attracting foreign investments, in the near term.

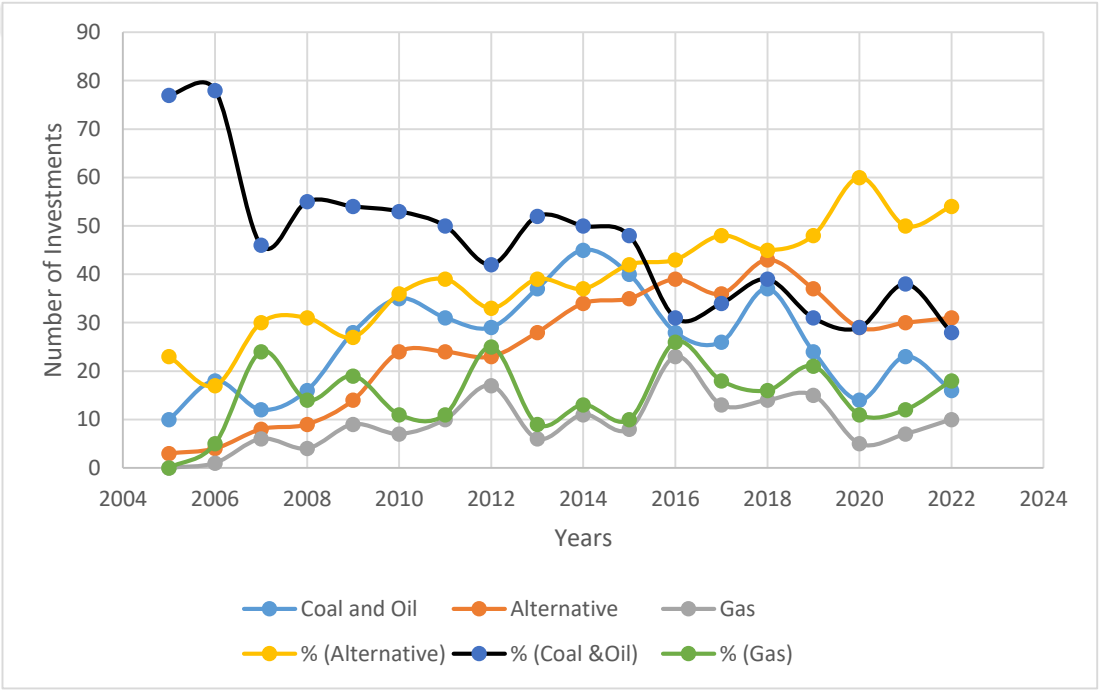

Figure 3. Trends for foreign investments in fossil fuels and alternatives

[The American Enterprise Institute, 2022]

Aligned with the Paris Agreement and the United Nations 2030 sustainability objectives, the count of investments in alternative energy has surpassed that of fossil fuel investments. This was announced by the Natural Resources Defense Council's

(NRDC) 2016 objective of eco-friendliness in the Belt and Road Initiative (BRI). Consistent with the aforementioned assertion, the establishment of the Belt and Road Initiative International Green Development Coalition (BRIGC) in 2019 aims to implement sustainable practices within the Belt and Road Initiative (BRI). This coalition has pledged to prioritize investments that align with sustainability criteria.

Figure 4 illustrates the evolution of a specific target over time, namely the promotion of alternative energy sources in the context of Chinese foreign investments. Since the launch of the Belt and Road Initiative (BRI) in 2013, a growing amount of resources has been allocated to this objective, with a notable acceleration after the establishment of the Belt and Road International Green Development Coalition (BRIGC) in 2019. As of 2022, gas investments constitute the majority (56.47%) of the total energy investments. Conversely, no investments in coal have been recorded in 2021 and 2022. A scientific interpretation of this trend in gas investments would highlight its bridge technology function, serving as a transitional tool from traditional fossil fuels to renewable energy sources (IPCC, 2014). Considering the downward trajectory of investments in coal and oil and the increase in renewables, the rise in gas investments paints a relatively optimistic picture since it marks an observable shift from unabated coal to alternatives.

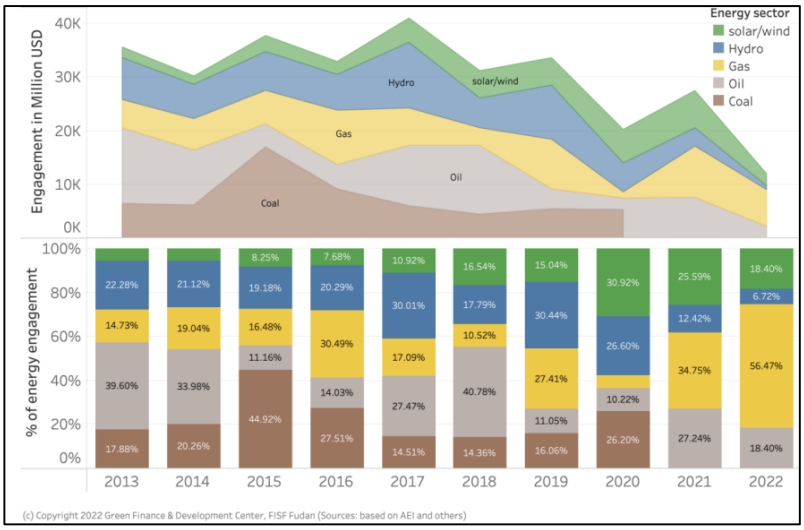

Figure 4. Distribution of energy investments under the BRI

[Nedopil, 2022]

This particular circumstance mirrored China's comprehension of its national targets concerning renewable energy. As the dataset covering 18 years indicates an increase in investments in alternative energy, this trend is also observed in the rise of China's global renewable energy production capacity. Such a trend has been so significant that China took the lead in renewable energy production globally in 2005, overtaking the USA and Canada, and has since further advanced its position. As per the data of the International Renewable Energy Agency (IRENA) in 2020, China emerged as the top player in the field with an estimated energy production of approximately 2.2 million GWh (IRENA, 2020).

If a focus on energy sector investments in 2022 is deemed necessary, it is important to consider the announcement made by Chinese President Xi Jinping in September 2021. Specifically, the President declared that no new coal power plants will be constructed in overseas investments. This decision, made before the COP26

conference in Glasgow, resulted in a reduction of fossil fuel investments, with no new coal power investments under the Belt and Road Initiative (BRI) observed in 2022. It should be noted, however, that this restriction only applies to new comprehensive project investments, and does not extend to ongoing projects over China's vast investment landscape. Furthermore, it is important to acknowledge that there are no new data entries regarding coal investments in the dataset from 2005 to 2022, confirming China's commitment.

Providing a context for the decline in coal investments, it is noteworthy to mention the 2021 COP26 conference held in Glasgow. During the event, the Chinese delegation, alongside their Indian counterparts, advocated for a gradual reduction of coal usage, rather than a complete phase-out. This position underscores the complexity of transitioning from fossil fuels to renewable energy sources, which cannot be achieved in an impromptu manner.

As indicated by the Center for Research on Energy and Clean Air (2022) report, the authorization of coal enterprises in China is frequently granted at the behest of influential business owners who wield sway over central authorities. Despite the country's significant share of global coal consumption, amounting to 53.8%, efforts to reduce domestic investment in coal have yet to reach a satisfactory level (IEA, 2022). Consequently, foreign investment has become crucial for attaining coal reduction targets. In this regard, China's participation in the COP26 process and its pledge to address coal consumption have bolstered foreign investor confidence. However, it would be wrong to conclude that the situation within China is entirely pessimistic, given its position as a leading provider of alternative energy solutions worldwide. Moreover, the country has witnessed an energy transformation in recent

years as its foreign investment priorities have increasingly gravitated toward alternative energy sources.

2.3 Foreign investments in the transport sector

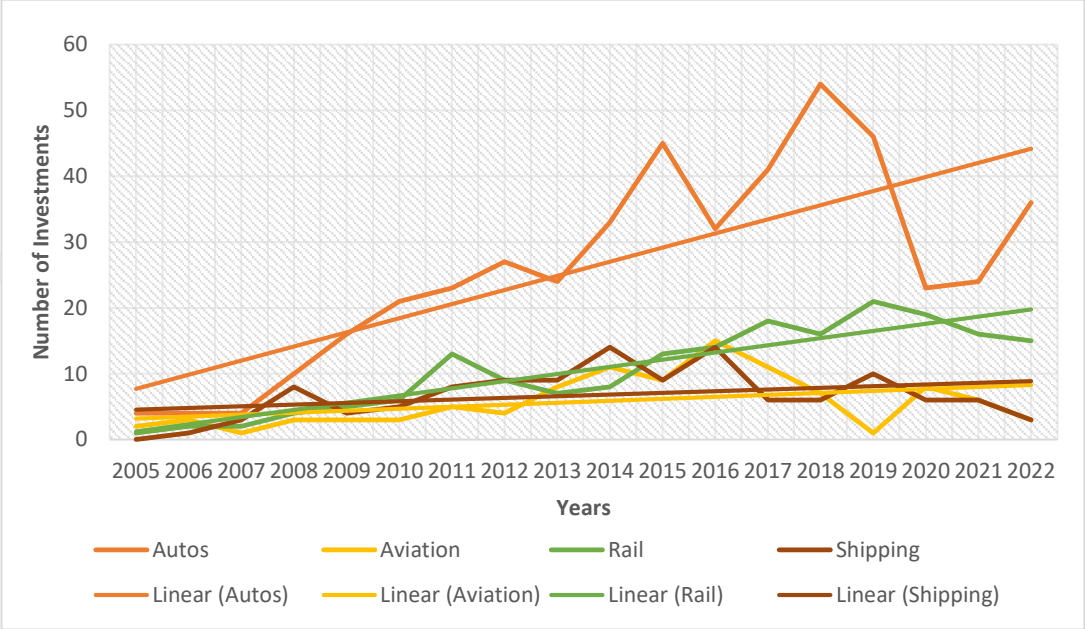

Figure 5. The number of foreign investments in transport

[The American Enterprise Institute, 2022]

The transport sector is a major contributor to global greenhouse gas emissions, accounting for 23% of total CO2 emissions (IPCC, 2014). It is the second largest investment priority after energy and includes sub-investment branches such as automobile, aviation, ship, and railway. According to the same report by IPCC, highways are responsible for the largest share of emissions due to their frequent use. However, the carbon emission potentials of the aviation and shipping sectors are also very high. On the other hand, railways are considered to be the most climate-friendly

transport sector. When examining the weight of investments in the transportation sector, it is evident that the majority of investments are made in land transportation, as shown in Figure 5. However, the type of investments in this sub-sector is highly heterogeneous. For example, the dataset covering the period 2005-2022 includes investments in road construction, passenger taxi companies, and automobile industry company stake acquisitions under the sub-sector referred to as "automobile".

For instance, Chinese company Didi Chuxing's $500 million investment in Singapore's Grab Taxi falls under the category of passenger transport investment, while Beijing Auto's $2.75 billion stake in German Daimler in 2019 is considered an investment in the automotive industry. The $460 million investment made by Chinese company Envision in Japan for producing electric automotive batteries is not categorized as a risky emission-generating investment, as electric vehicle batteries provide a significant opportunity to reduce GHG emissions (Kromer and Heywood, 2007).

In general, the transportation sector plays a crucial role in global greenhouse gas emissions, with land transportation being the dominant investment area. However, the type of investments made in the automobile sub-sector is highly varied, ranging from road construction to electric vehicle battery production. It is essential to consider the environmental impact of each investment and prioritize climate-friendly investments to achieve sustainable transportation systems. This point will be addressed in Chapter 5 in the related sub-section.

Upon examining the trend lines in the figure above, it appears that there has been an increase in each of the sub-investment sectors over 18 years. However, due to the heterogeneity in the increasing trend investment sectors, it is difficult to speak

of a shift from high to low emitters specifically in the energy sector. Furthermore, regarding the Belt and Road Initiative (BRI), there has not been a significant trend of increase or decrease in transport investments (Nedopil, 2022). China's progress towards climate-friendly decarbonization goals, such as the 2030 carbon peak and 2060 carbon neutrality, depends on its shift towards electrification in these sectors and prioritizing climate-friendly investments through structural policy changes (Xue and Liu, 2022).

2.4 Foreign investments in the metal sector

To analyze the impact of investments in the metal sector on climate change, a metal-specific and time-dependent evaluation is necessary. According to the Intergovernmental Panel on Climate Change (IPCC) criteria, the iron and steel industry emits the highest levels of GHG, followed by aluminum and then copper (Hertwich, 2021). Notably, copper has the lowest emission impact of the three, contributing to only 0.3% of total emissions (Watari et al., 2022). Consequently, evaluating the impact of metal investments in the period between 2005-2022 requires prioritizing the aforementioned order.

Furthermore, it is challenging to observe the shift at the core of this thesis by considering the metal sub-sectors as monolithic entities, as each metal serves as a raw material for distinct production processes. Alternatively, integrating low-carbon-emitting technologies resulting from R&D in production processes can help mitigate the impact of climate change. For example, the Chinese China BaoWu Steel (Baosteel) company's 470 million-dollar steel investment agreement with the

Australian Rio Tinto company in 2022 prioritizes low-carbon solutions as the second among its main objectives.

Figure 6, presented below, displays the alterations in investment periods for various metal subsectors, including steel, aluminum, and copper. The plotted lines indicate that none of the subsectors exhibit any discernible trend over time, as their slopes remain almost constant throughout the period. Consequently, it is not feasible to evaluate the overall impact of metal investments, as previously performed for the energy sector. Thus, it becomes necessary to explore alternative means to comprehend the impact of metal investments on climate change.

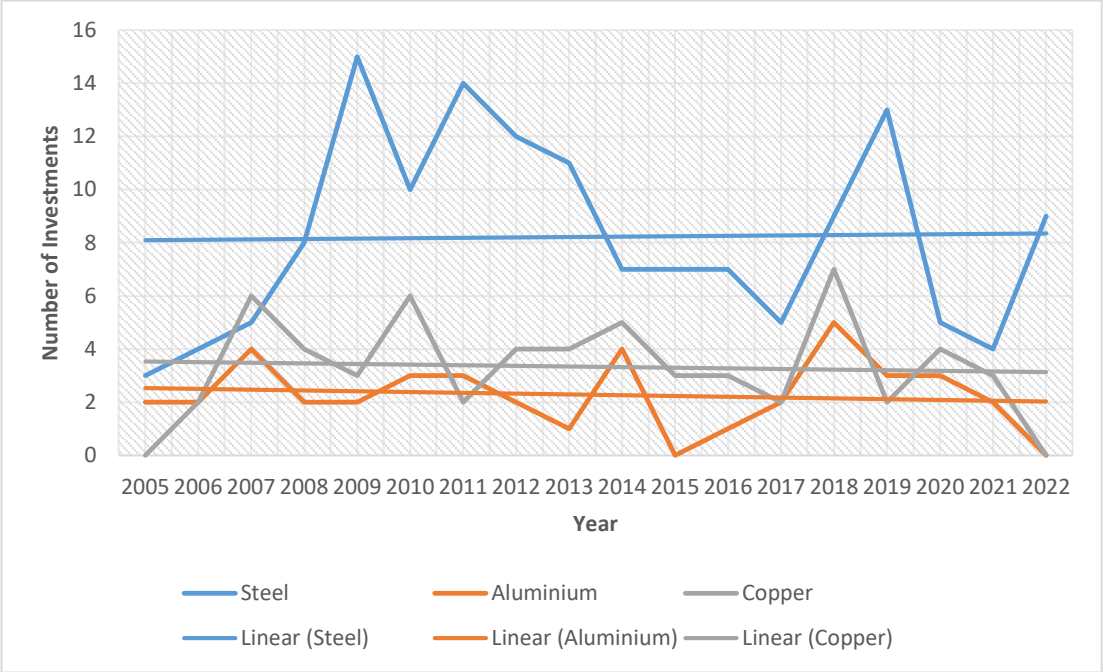

Figure 6. The number of foreign investments in metals

[The American Enterprise Institute, 2022]

One such approach involves an investigation of how Chinese contractors are engaging in climate-friendly production processes within the metals industry. For example, continuing the BaoWu Steel example just mentioned, has recently begun utilizing low-carbon steelmaking operations, which utilize hydrogen-based systems to mitigate carbon emissions during the production process (SteelOrbis, 2022).

Similarly, Xiamen Xiangyu, another Chinese firm, invested 1.04 billion dollars in a steel project in Indonesia in 2020, which focuses on the production of stainless steel, a material considered to be climate-friendly due to its high recyclability rate (Stewart et al., 2012). It is imperative to scrutinize the specifics of metal investments before categorizing them as environmentally friendly or not. The production processes involved in mining, operating the ores, and further refining the metals can contribute to greenhouse gas (GHG) emissions if high-emission technologies are employed. Therefore, investments utilizing low-carbon technologies may have a lower impact on GHG emissions compared to those that do not.

Overall, it is challenging to identify a genuine shift in the metal sector towards environmentally-friendly practices, as no discernible upward or downward trend can be observed from the plotted data covering the period from 2005 to 2022. Nevertheless, in terms of a focused analysis of investments by China within the context of the Belt and Road Initiative (BRI), the findings differ from the broader investment patterns shown by slope lines in Figure 7. Specifically, the slope lines demonstrate a decreasing trend in investments within the steel sector, albeit to a small extent. Conversely, there is a slight increase in investments within the aluminum sector, with copper following a similar downward trend as steel. Overall, while there is some degree of shift within the metals sector, it is important to note that this is not as pronounced as observed within the energy sector.

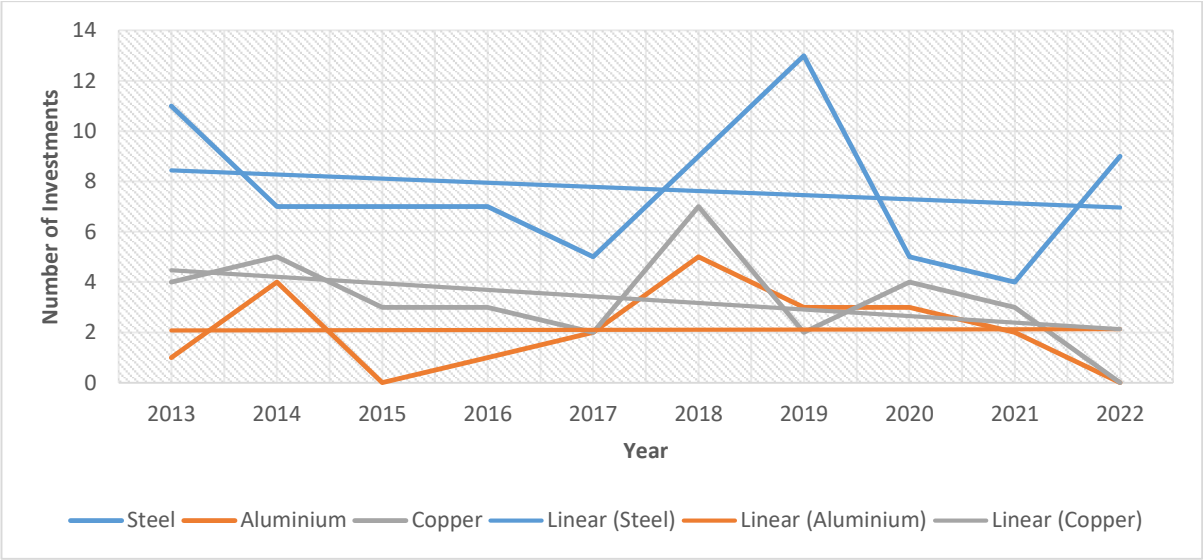

Figure 7. Trends in metals investments under the BRI

[The American Enterprise Institute, 2022]

2.5 Foreign investments in the real estate sector

When examining the numerical changes in China's real estate investments, an increasing trend can be observed between 2005 and 2022, as shown in Figure 8. Despite the negative impact of the pandemic in 2020 and 2021 on both the Belt and Road Initiative and other foreign investments, the upward trend is evident in both the construction and property sub-sectors. As mentioned previously, this sector's contribution to carbon emissions during both the construction process and afterward is a significant concern.

However, employing a generalizable approach to evaluating real estate foreign investments would result in inaccurate analyses as numerous aspects need details. It is important to note that several Chinese firms, such as Agile Property, China Communications Construction, and China Railway Engineering, have

prioritized sustainability in their operations and have implemented compliance mechanisms aimed at promoting eco-friendly and low-carbon emitting methods.

Figure 8. The number of foreign investments in real estate

[The American Enterprise Institute, 2022]

The real estate foreign investments of Chinese firms have experienced an upward trend over the past 18 years, particularly in construction operations. This trend suggests a higher potential for carbon emissions than Chinese investments in the property category, which generally involves purchasing existing buildings such as apartments, towers, business complexes, facilities, and shopping malls abroad. Despite being already built, property investments still have a considerable potential to produce negative effects, which is why Chinese firms tend to prioritize sustainability and climate goals when acquiring these assets.

The importance of sustainability and climate goals in the real estate sector has increased significantly in recent years, particularly following the Paris Agreement and China's announcement of its carbon emission goals and 2060 carbon neutrality goals at the UN General Assembly. As a result, Chinese contractors have become

more engaged in prioritizing environmentally friendly technologies for their investments in assets. Some companies have been focused on sustainability for several years, while others have only recently begun to prioritize environmental concerns. However, overall, there has been a growing trend among Chinese companies in the real estate sector to adopt sustainable practices and reduce their carbon footprint in response to increasing awareness of global climate change. It is worth noting the significance of the greening of the BRI goals launched by the Natural Resources Defense Council (NRDC) in 2016. This initiative emphasizes the importance of low-carbon emitting technologies in both domestic and foreign investments. NRDC is the first international environmental organization to carry out green building projects in China.

While the transition towards green buildings is more conspicuous at the domestic level, the foreign investment domain is anticipated to conform to similar environmental goals. Although there may not be a pronounced shift from high-carbon emissions to low-carbon emissions about the number of investments, a detailed analysis of the investment distribution about sub-sectors is illustrative of emergent ecological priorities that are consistent with the principles of sustainability and climate-friendliness. In general, it can be argued that the rising trend in real estate investments made by China is a component of the country's transition process and should not be considered a clear-cut shift as is the case with energy investments. The latter is typically associated with a more definitive shift towards low-carbon alternatives. The former, however, may not necessarily entail such a radical shift in terms of carbon emissions. Rather, it can be viewed as part of China's evolving economic and developmental trajectory, with real estate investments serving as a

vital component of the country's broader growth strategy and an essential part of the BRI projects.

2.6 Summary

This chapter provides a detailed analysis of China's foreign investment sectors over the period between 2005 and 2022. The top four areas of investment, namely energy, transport, metals, and real estate, were identified based on the number of projects undertaken. A sectoral and sub-sectoral analysis of the investment allocation was conducted to determine the low-carbon emitting and high-carbon emitting subsectors and to observe if any shift exists.

Using the scientific assessment criterion proposed by the IPCC and the IEA, the energy sector was found to be the clearest area through which a genuine shift from fossils to alternatives can be observed. This sector also contains the most emitting subsectors like coal, oil, and gas. The analysis shows that the shift towards low-carbon technologies is occurring more rapidly in the energy sector than in other sectors.

The transport, metals, and real estate sectors, on the other hand, contain high-carbon emitting subsectors over the period. Despite these sectors not showing a remarkable shift towards low-carbon technologies as the energy sector did, Chinese contractors tend to prioritize low-carbon technologies in these areas and have begun to adapt these methods recently.

However, it is important to note that climate change mitigation is a complex process that covers several stages of transition, and there is still a long way to go in

these sectors. Therefore, it is essential to monitor the progress made in these sectors and identify opportunities for improvement.

Overall, this chapter highlights the need for a comprehensive approach to reducing carbon emissions across all sectors. While the energy sector is leading the shift towards low-carbon technologies, other sectors such as transport, metals, and real estate are also making efforts to prioritize low-carbon technologies. The following chapter will build upon the findings of this study by providing a broader analysis of the shift towards low-carbon technologies in China's foreign investment sectors. This will be achieved by contextualizing the statistical analysis within China's broader scheme of engagement with the global climate change regime, as well as its national developments in the making of climate policies and climate diplomacy.

CHAPTER 3
LITERATURE REVIEW

The primary aim of this thesis is to gain an understanding of how China's foreign investment preferences are changing within the framework of a multipolar international system and to explore the connection between this shifting behavior and China's rise as an emerging global power. To achieve this goal, various theoretical frameworks such as realism, liberal institutionalism, and constructivism will be employed to analyze China's behavior in the international system about its investment preferences. Additionally, the two-level game theory, which highlights the interplay between domestic and international factors in shaping foreign policy decisions, will be discussed. Given that this study pertains to global norms and decision-making mechanisms related to climate change, the section will also delve into regime theory within the framework of liberal institutionalism. By employing these theoretical perspectives, this chapter aims to provide a comprehensive analysis that will be utilized to examine China's shifting position in a multipolar world.

3.1 Realist paradigm

This part primarily investigates the existing realist literature and its initial observations regarding China's climate policies in the context of international relations characterized by power and interest considerations. Initially, this paper will discuss the reluctance and disinterest of the realist paradigm in addressing climate change, with a specific emphasis on the difficulty of achieving cooperation among nation-states within an anarchic global environment. Subsequently, this paper will

briefly examine the inherent features of realism that ascribe a secondary-level significance to climate change. Then, this paper will explore the points of interaction, intersection, and overlap between the realist paradigm and climate change from a securitization perspective, seeking to portray climate change in a realist terminology.

3.1.1 Realism's disinterest and difficulty of cooperation

In the field of global climate change, bringing realism to the discussion is challenging due to the lack of interest prevalent among realist scholars. There are multiple reasons for this, with the primary one being that global warming and climate change are relatively new concepts, which contrasts with the archaic conceptualization and formulation of global politics. Realism is one of the most predominant theories within the international relations discipline, and it has several key assumptions that explain the operation of global politics or international power politics by nation-states driven by power, national interest, and maximization of both in an anarchic international setting where there is no supreme authority above nation-states (Carr, 1939; Morgenthau, 1967; Waltz, 1979; Mearsheimer, 2001). Realist scholars tend to focus on traditional issues, such as state security, military power, and geopolitical competition, which differ significantly from the concerns of the global climate change debate that is comparably novel (Heffron, 2015). As Van der Ven and Sun (2021) point out, since the impacts of climate change are not equally distributed worldwide, this lack of universality can also be a factor affecting this realist reluctance. Although cooperation is feasible in the international system under realism, it ultimately reflects the overall power distribution among nation-states and has little impact on altering state behavior, which is solely determined by national

interests and seeking power (Mearsheimer, 1994). Despite this, there is a growing recognition that global climate change is a significant challenge to international politics, and realist scholars must engage with it. This may explain probably why Walt, one of the famous realists, wrote the title of a Foreign Policy article in 2021 as "The Realist Guide to Solving Climate Change". Some of the related convergences and alternative research agendas for contextualizing global climate change in the realist paradigm will be addressed in the coming paragraphs.

Another reason why the realist paradigm remains distant from addressing climate change is due to its pessimistic view on the possibility of cooperation among international actors (Snidal, 1991; Grieco et al., 1993). Grieco (1988) believes that the prevalence of the relative gains problem in the realist paradigm hinders the potential for cooperation in an anarchic world. This means that when actors attempt to prevent others from pursuing their national interests or gains, it impedes the development of an organized and collective approach to fighting against climate change. Regarding relative gains as a determining factor for cooperation, Matthews (1996) proposes a framework that incorporates cumulative effects and variations to explain the long-term status of states' relative gains, instead of relying on a single explanation. An illustration of this framework is the Byrd-Hagel Resolution, which states that the USA will not participate in a climate agreement that would negatively impact the Kyoto Protocol and its economic interests (S.Res.98 - 105th Congress (1997-1998). This decision was driven by the uneven distribution of relative gains between the U.S. and China since the latter had a comparably more flexible position vis-à-vis the former (Vezirgiannidou, 2008). Underdal et al. (2012) touched upon this aspect and argued that China and India would be the top benefits of emission

reduction by developed countries and this highlights the potential US reluctance in making strict commitments regarding climate change mitigation.

Purdon (2017) makes a comparison of the effectiveness of climate funds and carbon markets and argues that carbon markets, due to their broader participation of states and the provision of economic incentives within the market, are comparatively more effective than climate funds. In contrast, climate funds may trigger relative gains concerns because of their dependence on official development assistance. The persistence of relative gains as a significant constraint is considered a key factor contributing to the low likelihood of cooperation in the realist paradigm unless appropriate mechanisms are implemented to address such concerns.

3.1.2 Tracing realist intersections through climate-security relations

In the context of realism's negative assessment of the possibility of international cooperation, Lacy (2005) criticizes this perspective from an imminent critique of the realist paradigm. By examining one of realism's seminal works, Mearsheimer's (2001) The Tragedy of Great Power Politics, Lacy asserts that the reluctance or disinterest in climate change cooperation stems from realism's hierarchical view of security issues, which places climate change as a "second-order" problem. As such, the realist paradigm has a narrowly designed security agenda that prioritizes war, conflict, and their sophisticated analysis, while neglecting the issue of climate change as a top-priority matter. The aforementioned critical viewpoint may be perceived as an effort to downplay realism, given its apparent disregard for addressing a pressing worldwide issue, and as a plea for critical theory to heighten awareness, as argued by Manuel-Navarrete (2010). This mode of comprehension based on hierarchical

rankings is not confined to the present study. Other researchers, such as Eckersley (2014), have also observed the character of climate change issues as being associated with "low politics" due to the security-focused nature of realism. Eckersley's interpretation serves both as an assessment of traditional realist academic discourse and as a challenge stemming from the conundrum of achieving collective action without a singular hegemonic power in the international system. In any event, these studies draw attention to a conspicuous reality that the realist paradigm does not have a suitable place for climate change.

Patrick (2020) proposes prioritizing an ecological form of realism as a solution to the problem of realism's detachment from global climate change. This approach aims to increase public understanding of climate change and its harmful impacts and promote international cooperation. This perspective takes a comprehensive approach, shifting away from a state-centric understanding towards a multi-layered framework that emphasizes the environment, sustainable development, and national security. Despite the elusive nature of this approach, particularly from a hard-liner realist standpoint, it presents a more holistic viewpoint. The proposition that climate change constitutes a significant threat to global stability finds resonance among scholars who distinguish between offensive and defensive forms of realism. In particular, proponents of defensive realism suggest that it may provide a framework for policymakers to adopt a more ecologically minded and pragmatic approach to climate policy. Laferriere and Stoett (1999) argue that top decision-makers in climate policy-making may be transformed into "realist ecologists," who view global warming and its associated costs as a shared danger to the planet. Moreover, Kaplan's (1994) influential article "The Coming Anarchy" adopts a more provocative tone, painting a dystopian vision of the future in which climate change

contributes to an era of social and political disorder. In this post-apocalyptic landscape, climate change acts as a threat multiplier, intensifying existing challenges of overpopulation, resource depletion, and poverty.

These propositions, which can be regarded as revisions to the traditional power-centric realist paradigm, have given rise to a burgeoning literature that examines the intersection between the anticipated costs of global climate change and the realist perspective. Paterson (2000), for example, considers the threat multiplier effect of climate change as a catalyst for increasing interstate and intrastate conflicts and provides an updated version of the security agenda championed by realism. Similarly, Chellaney (2007) cites the China-India dispute over water resources as an example of the potential for climate change to exacerbate existing conflicts in various parts of the world. Moreover, Sindico (2017) highlights the increasing recognition of global climate change within international institutions, pointing to the example of the United Nations Security Council (UNSC) resolution on the Lake Chad region. The inclusion of climate change as a significant security concern in UNSC agenda items from 2004 to 2007 has broadened the scope for examining the intersection between security and climate change. Sahu (2017) builds on this climate-security convergence, emphasizing the need for a multi-sectoral approach to securitizing global warming, given its potential threat to the economy, society, and interstate politics. For example, one implication of this multi-sectoral approach is provided by Briggs (2012) who explores the potential impact of global climate change on military and intelligence costs and proposes collaboration between decision-makers and scientists to assess the future resource requirements and operational expenses associated with climate change.

Buzan and Wæver (2009) present a revised security paradigm that critiques the conventional, state-centric approach to the securitization of global climate change. They propose a new framework, characterized by a security constellation that emphasizes the interplay between diverse security concerns and a range of actors. This approach represents an attempt to broaden the scope of the global security agenda to incorporate climate change, which has traditionally been regarded as lacking in sufficient global interest and realist scholars.

3.1.3 Climate change and global power setting

Buzan and Falkner (2022) propose a different viewpoint by bringing realism back in and contend that emerging powers such as the BRICS, particularly China, are deemed responsible great powers capable of leading the Global South in climate change. As mentioned in the thesis, this could offer a partial explanation for why China's investment portfolio predominantly focuses on G77 nations. Adopting a similar realist perspective, Yeophantong and Goh (2022) examine China's responsible great power image and suggest that, due to its dualistic identity as both a developing country and a rising global power, its climate change mitigation policies exhibit inconsistencies and a non-linear trajectory. This observation underscores our key argument that China's behavior in the multipolar international arena is shifting, which explains its changing performance in the energy sector but is not equally discernible in other areas of foreign investment, despite some signals of progress.

Going back to the previous point on China’s G77 leadership, it is seen that realist frameworks provide us with a better understanding of international power politics and its impact on China’s climate foreign policy. In terms of China's stance

within the global climate change framework, Chen (2008) highlights a two-pronged diplomatic approach characterized by a desire to steer clear of international obligations while also maintaining a strategic alliance with G77. Similarly, Wu's (2013) analysis emphasizes China's pragmatic tactics in utilizing the G77 as a bargaining chip against Western nations, ultimately seeking to secure concessions from these countries. Placed in a broader context, discussions on G77 + China reveal the overt emergence of an economically rising China that has the potential to assert regional dominance and lead the Global South in opposition to the directives of the developed Global North by using climate change negotiations (Hurrell and Sengupta, 2012). Accepting the primary concern of economic growth as part of emerging powers' national interests, Keohane and Oppenheimer (2016) highlight that the vagueness of the Paris Agreement and the relative ease with which China would comply can act as an attractive factor for China to receive investment and have reputational gains by maximizing flexibility and minimizing costly policies of climate mitigation. This point has to do both with the relative gains argument mentioned before and also with the point that global emerging powers increasing their weight in the international system. Also, the perception of China's rise which is manifested by its integration into global power competition and its emission record contributed to observing policy shifts in climate diplomacy, indicating a strong parallel between globalization and shifting positions (Carter and Mol, 2006).

When examining the international power dynamics that affect cooperation on climate change mitigation, it is crucial to consider the bilateral relationship between the United States and China as a key determinant. From the structural realist perspective, Patten (2009) highlights the fundamental importance of the involvement of the United States as a partner for China to become more actively engaged in the

climate change regime and to increase its commitments. Meanwhile, Howes (2009) presents an optimistic view of China's position and prospects for climate governance, arguing that collaboration between China and the United States could generate a strong sense of dynamism and synergy for the climate regime. Nevertheless, as the multipolarity of the system increases in terms of the balance of power, cooperation tends to give its place to conflict of interest, which is the case mostly observed.

Overall, this section first examined the main tenets of the realist paradigm and investigates the underlying reasons for its distance from the issue of climate change. Then it explored the intersections between realism and global climate change, with a particular focus on securitization and global power politics, thereby bringing the issue of climate change onto the power-centric and interest-based agenda of realism. Despite the initial disinterest apparent in the literature, it is evident that realism's key concerns have some resonance in international climate change policies. China's evolving climate policies, especially regarding energy investments, can be traced back, in part, to this paradigm. For instance, China's significant position within the G77, its status as a responsible great power, and also relative gains acquired by global climate change negotiations can shape its shifting policy stance and investment preferences. This point will be examined in Chapter 5 in detail.

3.2 Climate diplomacy as a two-level game

The realist paradigm, although prioritizing the interactions between states in the anarchic international system based on the self-help principle, acknowledges the partial impact of domestic factors in shaping foreign policy decisions, albeit at the margins. However, it would be more appropriate to touch separately on the two-level

game paradigm as a distinct category much related to the rational actor paradigm. Accordingly, agents of political decision-making, leaders are often confronted with domestic concerns arising from public opinion, interest groups, and institutions. To account for this dynamic, Putnam (1988) proposed a two-level game model for foreign policymaking, which posits that there is a simultaneous interplay between domestic pressures and foreign policy preferences of rational state actors during the decision-making process. This model has broad applicability to international negotiations, including climate change negotiations where leaders are in between international commitments and domestic considerations such as economic development priorities (Agrawala and Andresen, 2001). Accordingly, this section will examine existing literature on climate change negotiations from a two-level game perspective, with a focus on China's case.

The realist paradigm assigns primary importance to the state as the principal actor in diplomatic negotiations. However, scholarly literature has also examined the domestic factors that influence government decision-making, which can be complex and involve the input of civil society and interest groups (Bang, 2003). In this regard, Bjørkum (2005) proposes a comprehensive approach that considers a range of factors that hindered more proactive climate change mitigation policies in China. Specifically, the author highlights the pivotal role played by key bureaucratic bodies such as the National Development and Reform Commission (NDRC) and the Ministry of Foreign Affairs, whose policy priorities have been strongly geared toward economic growth.

Bjørkum's analysis is noteworthy for its emphasis on the economic consequences of bureaucratic decision-making in China, which demonstrates a direct correlation between policy priorities that prioritize economic gains and concerns over

potential economic losses. The author's multi-layered approach highlights the intricate interplay between domestic and international factors that significantly impact China's willingness to adopt proactive climate change mitigation policies. According to Bjørkum, financial resources and Clean Development Mechanisms (CDMs) have proven effective in shifting China's stance on climate policies. In a similar vein, Heggelund (2007) asserts that CDMs play a vital role in harmonizing domestic and international considerations, with a particular focus on economic gains. By providing lucrative opportunities for China to remain within the global climate change regime, CDMs serve as a powerful tool for promoting environmentally sustainable development in China. It is noteworthy here to mention that China's exclusion of non-governmental actors from decision-making regarding CDMs made its applicability and effectiveness much easier (Shin, 2010).

In the context of the two-level game, existing scholarship sheds light on the evolution of Chinese administrative bodies towards greater compatibility with international climate change negotiations. Tamura and Zusman (2011) conducted a comprehensive analysis of the institutional transformation that China underwent before its active engagement in the climate regime. This transformation involved restructuring local organizations that enjoyed a degree of autonomy from the central administration, as well as the development of the Scientific Development[1] and Harmonious Society[2] concepts by President Hu Jintao and Premier Wen Jiabao.

[1] The Scientific Development Concept is a guiding principle for economic and social development in China. It was introduced by President Hu Jintao in 2004 and emphasizes a more sustainable and coordinated approach to development. The concept has been included into China's Five-Year Plans and has had a significant impact on China's economic and social policies, including its approach to climate change. For more on this, see Zhang, H. (2014). Scientific Outlook on Development and China's Diplomacy. In J. Yang (Ed.), *China's Diplomacy: Theory and Practice* (pp.191-243). World Century Publishing Cooperation.

[2] Harmonious Society is a concept introduced by President Hu Jintao in 2005 as a guiding principle for social and economic development in China. The concept emphasizes the need for social stability,

These concepts aimed to address domestic unrest caused by uneven economic development and a growth-centric approach to economic planning. Fewsmith (2008) also underscores the importance of the shift in China's national development strategy from a narrow focus on economic growth to a more comprehensive notion of development centered on social harmony, which occurred during Jintao's presidency. Taken together, these studies offer valuable insights into the multifaceted process of China's integration into the global climate regime, highlighting the critical role played by institutional transformation, policy development, and ideological shifts in shaping China's approach to climate change.

Renjie's (2021) analysis of China's domestic institutional rearrangements offers a valuable counterfactual examination of the country's policy shifts in climate change mitigation. Specifically, Renjie argues that if not for the effective international pressure placed on China to increase its engagement in climate policies and the pro-environmental visions of the Ministry of Environmental Protection, China's policy changes would not have been as substantial as they are today. Mukhia (2018) highlights the salience of domestic factors, particularly the issue of increasing pollution in major Chinese cities, as a key driver for China's heightened engagement with climate policies under Presidents Hu Jintao and Xi Jinping. This underscores the importance of domestic concerns and pressures in shaping China's approach to climate change and provides further evidence for the complex interplay between domestic and international factors in shaping China's climate policy trajectory. He (2010) also contended that domestic factors like achieving a low-carbon economic

fairness, and harmony, which are seen as necessary for sustainable economic development. The concept has had a significant impact on China's economic and social policies, and has been incorporated into the country's Five-Year Plans. For more on this, see Geis, J. P., & Holt, B. (2009). "Harmonious Society" Rise of the New China. *Strategic Studies Quarterly*, *3*(4), 75-94.

development strategy and international aspirations to have a greater place in global issues have gone hand in hand and pushed China to shift its policy preferences.

Overall, these balanced assessments of the two-level interaction between China and the international community serve as a corrective to Putnam's (1988) notion of "partial equilibrium" interpretations, which can obscure the complex and multifaceted nature of China's policy shifts on climate change mitigation. Renjie's analysis thus provides a nuanced perspective on the institutional, political, and social factors that have influenced China's approach to climate change, highlighting the crucial role played by both domestic and international pressures in shaping the country's policy trajectory.

3.3 Liberal institutionalism and regime theory

Liberal institutionalism and regime theory offer clear insights into how a country engages in international institutions or regimes to achieve cooperative action. Both theoretical lenses share a common denominator that can be seen as the opposite of realism. This is basically about their emphasis on cooperative gains as a factor paving the way for an international system where conflicts among states are lesser than the non-institution or non-regime scenario. The relevance of these paradigms becomes much more apparent when we contextualize climate change in general and China’s shifting position as a proactive member of the international regime for global climate change in the scope of these theoretical approaches. After delving into liberal institutionalism with its key elements, regime theory will be also examined with its contribution to the issue of cooperation among states, particularly China and the other participants of the UNFCCC.

3.3.1 Liberal institutional approach to global climate change

Compared to the realist paradigm's grim picture of the possibility and success of cooperation, liberal institutionalism has a more optimistic view of cooperation among states. First and foremost, as Keohane and Nye (1989) point out, globalization has brought a new world of expanding networks of trade, finance, culture, and multiple channels of communication so that cooperation has become a necessity rather than an option. Regarding global climate change, for example, cooperation is a must because the atmosphere is a public good and its deterioration requires cooperative and collective action among all states under the UNFCCC (Galiana, 2014). Contrary to the conventional realist critique held by Mearsheimer (1994) on the grounds of the difficulty achieving cooperation under an anarchic world with relative gains concerns, Keohane and Martin (1995) emphasize that realism's pessimism depends mainly on the conditions under which state act and contend that mutual gains arising from rational actor's absolute gains consideration shape the extent of cooperation, thereby increasing the prospects of cooperation. Another realist concern over the cooperation among states is state sovereignty. Nevertheless, Krasner (2011) argues that globalization and the growth of international institutions do not undermine state sovereignty but change the extent to which state authority is performed. Therefore, cooperation through international institutions under anarchy is possible and state sovereignty is not incompatible with that.

Another work by Keohane (1998) contends that overemphasizing the relative gains concern is not correct since international institutions do not have a unilateral or bilateral nature so a high number of actors involved in any international institution tend to prioritize individual or absolute gains. Considering the institutions on global climate change, this point has significance, due to the high participation in Kyoto

Protocol or Paris Agreement. It is worth noting the fact that since climate change mitigation includes several policy initiatives that may result in a conflict of interests –and this is often the case during the COPs, it is important to understand liberal institutionalism's approach to conflict prevention of international institutions. This issue has been taken broadly by several scholars addressing the conflict-prevention capacity of international institutions (Shannon et al., 2010; Bakaki, 2018; Edwards and DiCicco, 2018). Accordingly, Stares and Zenko (2011) examine this issue from a non-institution counterfactual and argue that multifaceted policies and regulations taken by international institutions are not the ones that can be taken individually by any country so that they can prevent conflict and crises.

Regarding the design and structure of international institutions, however, the existing literature has an approach based on the interest maximization of the actors involved. This aspect is in parallel with realism's power-centric conception of state behavior. Prioritizing institutional design based on rational considerations of state interest shapes this process (Koremenos et al., 2001). Accordingly, Hepburn and Stern (2008) underline a complex and asymmetrical Prisoners' Dilemma in analyzing international institutions and brought this framework to offer a new climate deal to address states' interest-based concerns. This is especially true if one considers that mitigation policies targeting GHG emission reductions are costly undertakings and their costs tend to increase (Stern, 2008). Regarding the cost-related issues, Manoussi and Xepapadeas (2017) underscore that as the social costs of mitigation decrease, actors tend to increase GHG emissions due to a lack of serious concerns so that the cost calculations of the global climate change mitigation have a determining impact on the institutional capacity to deal with global climate change.

In addition to the significance of the rational and interest-based design of institutions, it is also highlighted that effective communication among parties, information sharing, and transparency criteria are essential to building trust in the making of effective international institutions to address global climate change (Engberg-Pedersen, 2011). In the context of rational design, it is also significant to address whether the burden of climate mitigation is evenly distributed through transparent and fair mechanisms (Evans and Steven, 2009). This point draws our attention to the key reference used by China in climate change governance which is based on the phrase "common but differentiated responsibilities and respective capabilities and their social and economic conditions" stipulated by the convention (UNFCCC,1992).

Since there is a discernible asymmetry among countries both in the extent of contribution and negative impacts of climate change, international institutions can be less effective because countries having common developmental concerns can share the same bargaining position even if they have security-related disputes like the one seen between China and India (Mizo, 2016). So, for an international institution regulating the mitigation processes to be more effective, it is important to increase the participation of developing countries through incentives or emission trading markets which can increase their prospects for economic gains, thereby reducing the impact of material concerns (Viguier, 2004).

Generally speaking, liberal institutionalism presents a more positive outlook than realism regarding the potential for cooperation among nations, without necessarily conflicting with the central tenets of realism. Instead of focusing on the problem of relative gains, which is viewed as the primary obstacle to achieving cooperation, this perspective emphasizes the importance of absolute gains. While liberal

institutionalists acknowledge the challenges to cooperation, such as the asymmetrical positions of actors within international institutions and the issue of free-riding, they propose solutions to increase the likelihood of collaboration, such as creating incentives to promote economic benefits and designing institutions that prioritize rationality, transparency, and fairness. China, for example, has greatly benefited from the clean development mechanism, which has made it a global leader in wind and solar power generation as a major recipient of renewable energy investments.

3.3.2 Regime theory

Regime theory offers a useful framework for examining the issue of global climate change, as the agreements and institutional structure that have formed around the United Nations Framework Convention on Climate Change (UNFCCC) have created an international regime. This regime has garnered near-universal participation, and actors within it position themselves in various ways to engage in collaborative efforts, including learning the regime's expectations, internalizing its norms, and expanding participation in decision-making processes. This section will provide an overview of regime theory and examine how the observed shift in China can be related to the regime, as well as how the interaction between the regime and actors produces certain outcomes.

3.3.2.1 International regimes oscillating between absolute gains and relative gains

In examining the behavior of China as a rising power in the context of global climate change, it is necessary to explore the literature on the liberal paradigm's approach to cooperation in international institutionalization. However, to gain a more nuanced

understanding of this issue, it is imperative to delve into the contributions of regime theory. The institutions and structures established under the UNFCCC, which aim to reduce greenhouse gas emissions, are collectively considered a regime. This section seeks to expound on the fundamental premises of regime theory as espoused in the literature, and subsequently analyze the international regime for global climate change. More specifically, this section aims to elucidate the position of China as a subject in the literature, within the broader context of global climate change.

International regimes are spontaneous, negotiated, or imposed institutional frameworks that aim to achieve a shared objective, providing effective tools for states, and the principal actors involved, to discuss specific issues, establish normative foundations, and facilitate decision-making (Young, 1982). By iterating the Prisoners' Dilemma, negotiated regimes can alter the global context in which states operate, rendering cooperation among them more attainable than in the absence of any regime (Haggard and Simmons, 1987). This contradicts the pessimistic view often held by realists regarding prospects for cooperation by offering a reverse understanding of state and regime interaction where the latter has a determining impact on the former. Krasner (1982a) pointed to this reverse relationship by contending that regimes can be considered independent of the anarchic international setting and they even can mitigate this anarchic structure by offering incentives for cooperation and negotiation as a platform. However, Hasenclever et al. (2000) argue that regimes may primarily be driven by the pursuit of absolute gain maximization, as opposed to relative gain maximization discussed earlier.

Stein (1982) proposes a distinct realist approach to regimes, asserting that the realist premise of anarchical world order and the possibility and feasibility of

international regimes are not inherently contradictory. Instead, regimes arise from the self-interested calculations of sovereign states seeking to address problems arising in an anarchic context. Thus, the realist design of the international system itself contributes to the emergence and functioning of regimes. Keohane (1982) advances a supply-demand perspective on the emergence of regimes, arguing that the increasing number of global issues that states cannot solve independently has led to a growing demand for international regimes. Keohane's argument echoes Stein's analysis of the complementary relationship between anarchy and the emergence of regimes. However, this convergence is limited to realism's boundaries, which view interest and power as the primary concepts governing state behavior. Although regime formation can initially be attributed to self-interested state preferences, its continuation may not always lead to cooperation but can also engender conflicts of interest primarily due to the different ways in which rationality is understood in Keohane's (1984) egoistic rational actors who calculate their interests independently of others. Realists contend that relative gains, not absolute gains envisaged by actors independently, will determine the regime's continuity, reflecting the distribution of power in the international system (Levy et al., 1995). Krasner (1982b) shares the view that actors involved in a regime are primarily motivated by the pursuit of absolute gains, aiming to maximize their benefits without necessarily considering the gains of others. The main focus, in this case, is on achieving a convergence of expectations, i.e. reducing greenhouse gases by incentivizing renewables.

Krasner (1981) indirectly acknowledged the realist approach to regimes, as evidenced by his analysis of North-South debates regarding regimes. He argues that in the regimes he studied, developing countries in the global South are demanding changes to the regimes due to the asymmetry arising from their existing unequal

positions. While this diagnosis is often seen as a third-world issue, the increasing presence of China's BRI and previous investment landscape in the global South, as well as the dominance of the G77+China phenomenon in WTO and COP negotiations, are clear indications of this trend today (Walaza, 2014; Zhang, 2017).

3.3.2.2 From regimes to regime complexity

Prior research in the field of international institutionalization focused mainly on institutional interplay that generates complex interactions between different sets of institutions, leading to a broader understanding of changing dynamics of global governance (Stokke and Oberthür, 2011). However, the proliferation of multiple international institutions and regimes with different but intersecting sets of rules and regulations has led to a shift toward studying regime complexity that contains multiple regimes (Alter and Raustiala, 2018).

In this regard, research on regimes in the context of global climate change has moved from a single regime regulating actors' policies to a "regime complex for climate change," where multiple regimes hold authority over a single subject matter (Keohane and Victor, 2011). Hence, the governance of climate change is characterized by a complex interplay and overlap among various institutions and regimes, without any single entity holding superiority over others. This phenomenon of regime complexity can be illustrated through the following framework by the authors:

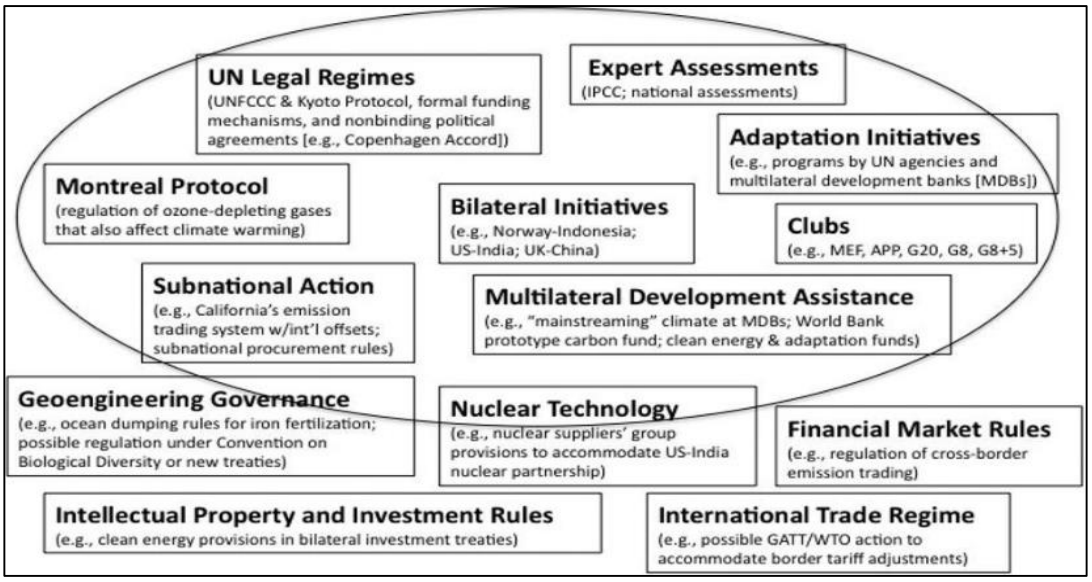

Figure 9. The regime complex for managing climate change

[Keohane and Victor, 2011]

Keohane and Victor (2011) present a regime complex diagram that includes multiple domains, some of which are significant for demonstrating China's strategic shifts on this issue. For instance, the bilateral cooperation resulting from regime-actor interaction within the context of liberal institutionalism and regime theory discussed in Chapter 4, as well as domestic norms, institutional regulations, and financial gains, are examined as subsets within the regime complex. It is possible to expand on these domains, and regime-actor interaction can lead to various relationships in numerous subdomains. However, since this study mainly focuses on foreign investments and their potential material and reputational gains, there is no need for proliferation through this diagram. The main purpose here is to provide a basic overview of the opportunities presented by the global climate change regime in the specific case of China. In other words, actor behavior under the UNFCCC

umbrella cannot be limited to a commitment-action dichotomy but it is built on realist considerations based on an accompanying incentive structure which will be discussed in Chapter 5.

In the context of more effective action against global climate change, a novel governance model that involves other institutions such as the WTO, OECD, and UNDP in addition to the UNFCCC has been proposed as an alternative to a UNFCCC-centered approach, according to Michonski and Levi (2010). However, when approaching the issue through the concept of a regime complex, as pointed out by de Chazournes (2014), the post-Kyoto process can be seen as a turning point that touches on policies related to other areas such as international trade. It means that the policies of actors within the global climate change regime complex become capable of affecting and being affected by multiple different areas simultaneously, forming a complex web of interdependencies. This ultimately accelerates the tendency of parties within the regime to make strategic decisions while considering the next impact areas and associated costs, producing a kind of "chessboard politics" (Alter and Meunier, 2009).

One of the points addressed in the characterization of the regime complex by Keohane and Victor (2010) is the multiplier effect of this complex structure in the likely conflicts of interest that may arise even in a single regime. The possibility of rational actor choices having repercussions beyond a single domain, and thus extending to different domains, is, therefore, a major concern. In the context of climate change, the issue of forum shopping - which refers to parties within the regime complex seeking the most lucrative regime that fits best to their interest maximization, even if it is not traditionally associated with climate change - is also worth discussing, given the likelihood of high costs associated with decision-making

(Draguljić, 2019). According to Busch (2007), this situation can negatively affect the effectiveness of regimes, as actors tend to prioritize interests that are central to their future calculations. In this regard, the increasing frequency of China's reference to the principles envisaged for the BRI to make it more environmentally friendly in addition to the Kyoto and Paris processes in the UNFCCC context serves as evidence of the behavioral shift central to this thesis.

Despite the negative relationship between forum shopping and regime effectiveness, Murphy and Kellow (2013) adopt a more nuanced approach by highlighting the possibility that multi-domain governance could lead to a more optimistic situation. However, in the context of climate change and China, this approach demonstrates that even in multiple domains, actions tend to align with fundamental economic interests. Therefore, in the literature, a more suitable approach to forum shopping in the regime complex of climate change observes shifts towards long-term interests, as demonstrated by China’s investment allocations. This issue is particularly pertinent given China's role as a major investment donor across a vast investment landscape. Engels (2018) emphasizes the importance of considering China's foreign investments and development assistance, particularly in the form of infrastructure, which is exemplified by the BRI and China's recent involvement in African countries. Therefore, a critical analysis of this topic is essential.

Regime theory has made significant contributions to the discussions surrounding China's climate change policies, particularly within the context of a global regime or a complex regime structure. Aligned with the explanations of cooperation among states put forth by liberal institutionalism, regime theory presents a framework that sheds light on China's engagement in the proliferation of various regimes and the challenges that may arise from the expansion of a regime complex.

Within this discussion, China's role as a participating party in the global climate change regime complex is highlighted, as evidenced by its continued engagement in international agreements such as the UNFCCC, Kyoto Protocol, and Paris Agreement without withdrawal. Furthermore, China's approach to dealing with the regime is dynamic and mutually reinforcing, involving a changing process that impacts actor-regime relations and forum shopping strategies, and shapes China's positioning in these discussions. These factors, including actor-regime relations, forum shopping, and China's positioning, have significant implications that merit attention in the discussion chapter of this thesis. By employing regime theory's general contributions and its relevance to China's shifting position, the discussion chapter will elaborate more on this subject.

3.4 Constructivist paradigm

In this section, the existing literature concerning constructivism will be explored, focusing on its fundamental assumptions and how it views climate change as a form of norms and knowledge that influence the ideas and interests of the state. The discussion will particularly address how China is establishing an international identity by investing in renewables and emerging as a global leader in this area, which reflects a shift.

3.4.1 Constructivism and its reflections on global climate change issue

Constructivism is a theory in the field of international relations that places great importance on the role of ideas, norms, and identities in shaping the behavior and interests of states and other actors in the international system, which serves as a

platform for interactions among states (Reus-Smit, 2005). It asserts that international relations cannot be solely explained by material factors such as power or economic interests, but are also influenced by the beliefs and values held by the actors in the international system and that these factors cannot be separated (Hay, 2001). Constructivism suggests that the meanings and interpretations of events and circumstances are not objectively determined, but are instead socially constructed through interactions between actors, thereby attributing a social character to the international system. In this view, nation-states relate to one another in an intersubjective manner in which they define their identities and perceive one another (Wendt, 1992; Hopf, 1998).

Finnemore and Sikkink (1998) provide an evolutionary perspective on the importance of norms, ideas, and knowledge, highlighting their emergence and internalization over time. This perspective sheds light on China's approach to climate change, which was not proactive from Kyoto to Paris periods. The role of non-state actors, particularly the Intergovernmental Panel on Climate Change (IPCC) as an epistemic community, in shaping the perception of norms and information is also emphasized in the literature (Finnemore, 1996; Allan, 2017). Haas (2016) underscores the significance of epistemic communities in reducing uncertainty, which has become prevalent in the context of globalization, thereby making states uncertain about their interests. This observation resonates with Keohane and Victor's (2010) regime complex diagram that depicts the multiplicity of regimes in climate change policymaking. Fogel (2007) presents a case study of the American institutions in which progressive norms of global climate change played a framing role in climate discussions at the domestic level. Hence, it is plausible to argue that

norms and scientific knowledge play a vital role in representing the complexities of the issue and simplifying the way they are perceived.

According to Messari (2001), foreign policy serves as a means for states to construct their identity and shape perceptions of themselves and others in the international arena, thereby linking constructivism with foreign policy-making. To observe how this mechanism of identity perception operates in the context of climate change, it is useful to examine how policymakers generate and utilize discursive frames, particularly the concept of climate justice, which serves as a discursive battlefield in North-South discussions (Audet, 2013). This issue gains significance when viewed through the lens of the constructivist paradigm, wherein the social environment in which states interact with each other in an intersubjective manner is continually defined and redefined through human agency (Adler, 1997). As such, the discourse of policymakers has a defining impact on how states are perceived on a particular subject, namely, climate change in this thesis.

3.4.2 The case of China: shifting behavior and constructivism

As put forward in the thesis, a noteworthy phenomenon that has emerged is China's discernible shift in investment allocation preferences from a fossil fuel-centric approach to a renewables-dominated one, spanning a time frame of 18 years, specifically from 2005 to 2022. This shift is particularly significant in the context of China's rise as a prominent power in the multipolar global landscape. Consequently, the nuanced interplay between climate change policies and China's evolving position warrants a constructivist lens, which underscores the salience of norms, values,

knowledge, identity, discourse, and intersubjective communication, as expounded upon earlier.

In recent years, the global climate change issue has evolved from being solely dominated by advanced industrialized countries responsible for GHG emission reduction targets, to also including the voices and perspectives of developing countries Cass and Pettenger (2007). This shift in the international agenda has emphasized the need to combine power-related explanations based on material factors with ideational factors to comprehensively understand climate change and its constructivist appeal in the international system (Pettenger, 2007). Furthermore, the changing nature of identity, particularly in the case of China, has played a significant role in shaping its approach to climate change.

China, in particular, has been undergoing a significant transformation in its identity-making process, moving from a traditional to a modern state character (Chan, 2014). However, this period of change has presented challenges for China, as Pu (2017) argues, China has struggled with positioning itself in the international system. The author also highlights the use of status signaling as a multilevel game through which China projects its leadership position domestically and internationally, implying the intersubjective character of international communication. Wang and Zhou (2020) reveal that at the domestic level, there has been a notable change in public perception among the Chinese people, with climate issues gaining priority in their minds. This underscores how China's political signaling has resonated at the domestic level and has implications for its climate policies.

China's evolving international identity also has ramifications for its climate policies. Conrad (2012) describes China's indecisiveness in expressing its international identity as a significant factor contributing to the challenges in achieving international cooperation on climate change. However, since the aftermath of COP15 in Copenhagen, China has shifted its positioning vis-a-vis global climate change. Yang (2021) offers a comprehensive analysis of how China's "leading state" image has become a key pillar of its international identity component after Xi Jinping took power. This analysis provides profound insights for a constructivist lens towards climate change and China, tracing the shift from a developing country identity towards a leading state image with a greater willingness to undertake responsibilities. In a similar scholarly perspective, Tamura and Zusman (2011) elucidated that a speech delivered by Hu Jintao in 2009, wherein China was attributed with a leading role in addressing climate change, influenced the discourse surrounding climate change policies by advising China to adopt a more proactive stance. This serves as an illustrative example of how social interactions can shape the trajectory of foreign policy about a particular issue.

The constructivist paradigm's analysis of climate change and China's shifting position is noteworthy due to its focus on norms, ideas, values, knowledge, social interaction, and intersubjective relations as influential factors in shaping national interests within the international system. As China's involvement in climate change policies is dynamic, as evidenced by its foreign investment allocation reflecting significant shifts in energy and slight changes in other sectors, a constructivist perspective would yield valuable insights on this issue. Additionally, constructivism highlights the role of international identity as being constructed through foreign policies and the associated discourse and framing. These factors collectively

contribute to a comprehensive understanding of China's changing behavior in its foreign investments in the energy sector and its emergence as a leader in renewable energy. They will be further expounded upon in the following chapters.

CHAPTER 4

REGIME-ACTOR INTERACTIONS AND CHINA'S SHIFTING POSITION

China's participation in the global climate change regime has influenced its climate-related policies and actions, shaping the trajectory of the regime on a global scale. Since its first delegation to the UNFCCC in 1992, China has actively engaged in the annual COP meetings as an active participant. This chapter will demonstrate how China's interaction with the international regime for global climate change has prompted policy adjustments and shifts in investment allocation towards environmentally sustainable sectors during the period examined. China's advocacy for fair and equitable climate governance, emphasis on the principle of "common but differentiated responsibilities," and domestic climate actions have also influenced other developing countries and contributed to the global expansion of renewable energy markets. After explaining China's involvement in the regime and its institutional framework, this chapter will trace how the regime has had an impact on its policy shift, the tendency to cooperate, and rising normative awareness within China's domestic setting.

4.1 China in the global climate change regime

Considering China's relationship with the global climate change regime, the 1990s can be considered a milestone. China, which is a party to the 1992 United Nations Framework Convention on Climate Change, ratified the convention in 1993. After this date, it actively participated in annual meetings (COPs). China which is classified as a Non-Annex I country within the scope of the UNFCCC as it is

included in the developing countries in the classification based on economic development had the freedom not to make any concrete mitigation commitments or financial support. Over the three decades in climate change negotiations, China has been a staunch proponent of the normative principle of “common but differentiated responsibilities and respective capabilities”. Accordingly, its main strategy focused primarily on the flexibility of measures and policies regarding carbon emission reduction and gradual transition towards renewable energy sources.

By the 1997 Kyoto Protocol at the third COP meeting, China signed the protocol in 1997 and put it into force in 2002, but along with other developing countries it kept its position and refrained from making any binding commitments on CO_2 emission reductions thereafter. At first, China did not have a positive attitude towards Clean Development Mechanisms (CDMs), one of the flexibility tools envisaged by the Kyoto Protocol, and this attitude has changed since the COP7 held in Marrakech in 2001. Since then, Beijing established official mechanisms responsible for supervising, regulating, and operating CDMs. During the COP15 held in Copenhagen in 2009, China surpassed the United States and became the world's largest carbon emitter. However interesting as it might be, shortly before COP15, China announced its first emission reduction target in compliance with its Eleventh Five-Year Plan (2005-2010). In this context, China, aiming to reduce its carbon intensity by 40-45% per GDP compared to its 2005 levels by 2020, went to Copenhagen with this "voluntary national target" (Moore, 2009).

In 2014, a significant development took place in the context of China's engagement with the global climate change regime. As the two largest carbon emitters in the world, China and the United States issued a joint statement, signaling cooperation on climate change. This was a noteworthy development, as China committed to action

targets, which it had not done before. One year later, at COP21 in Paris in 2015, China announced its own Intended Nationally Determined Contribution (INDC) and pledged to peak carbon emissions by 2030, increase the use of non-fossil fuels and expand the volume of forest stocks (UNFCCC NDC Registry, 2015). In 2016, the United States and China held a joint ceremony to ratify the Paris Agreement.

By 2017, cracks in the climate change regime, originating from the United States, began to appear. Despite the regressive attitude of US President Trump, who announced that the US would withdraw from the Paris Agreement because the agreement considerably hinders American national economic development, Chinese President Xi Jinping emphasized that they are in strict adherence to their national commitments under the agreement and underlined that China can lead the global climate change regime in the international arena (Swaine, 2017). At COP24 held in Poland in 2018, China compromised with the EU and other developed countries to implement a common standard for monitoring activities, reporting carbon emissions, and transparency in implementation processes. Xie Zhenhua, head of the Chinese delegation, underlined the very necessity of transparency as the condition for trust among parties, as well as the fact that developing countries may vary in capabilities.

On September 2022, on the commemoration of its pledge to carbon neutrality, Chinese President Xi Jinping revealed a new policy that would prohibit the construction of any new coal-fired power plants from the scope of China's foreign direct investment (Yi, 2021). This was significant progress just before COP26 because China’s foreign direct investments were a matter of scrutiny due to their high-level carbon emissions. During the COP26 held in Glasgow in 2021, the Chinese delegation, together with India, made an effort to change the wording as “phase-out” in the draft text on coal power to “phase-down” of the unabated coal.

Again, in this process, China signed a joint agreement with the U.S., just as it did during the Paris Agreement, signaling that the two major global emitters will work in cooperation in the fight against global climate change. The mention of global climate change as a "crisis" in the text of the bilateral agreement showed that the importance attached to the issue by the two major emitters was at an alarming level compared to the previous text of the joint announcement in 2014.

At the COP27 held in Egypt in 2022, which is a milestone in terms of agreeing on loss and damage compensation, China announced that it will not contribute to the financial mechanism in this regard. Chinese special envoy Xie Zhenhua's statement that China does not bear any responsibility for loss and damage was a clear manifestation of China's actor behavior in the climate change regime. Expressing a positive view that there should be a loss and damage mechanism on the one hand, China, on the other hand, iterated that it will not have any financial contribution to this mechanism, and pointed out the source of the climate crisis as developed countries that released emissions unaccountably while industrializing in the past two century (Theseira, 2022).

4.2 Regime interaction and policy shifts

Taking into consideration this background, we observe that China has been continuously present within the global climate change regime, but has developed policies by the "common but differentiated responsibilities and respective capabilities" principle, which is one of the fundamental principles of the UNFCCC. In the context of the regime and actor interaction, three important issues urge us to consider whether the cooperative approach of liberal institutionalism is effective in

the context of China. The first issue concerns the shift in foreign investments, which is also central to this thesis. The second issue is China's tendency to collaborate with the US, one of the largest emitters, on global climate change. The third and final issue is how China has developed a set of normative principles, which was not previously in existence but has particularly emerged since the early 2000s, and how it has developed a national doctrine on issues such as society, development, and globalization, with a focus on environmental concerns and climate change. This section will take a look at whether the regime and the international institutional structure have influenced these three changes, by examining how these shifts can be attributed to the framework of liberal institutionalism.

4.2.1 Shifts in foreign investments and the regime interaction

The global climate change regime recognizes the critical role that energy plays in contributing to climate change and the need to transition to a more sustainable energy system and provides support for the deployment of renewable energy technologies and the mobilization of financial resources to support this transition. The UNFCCC and other major global climate deals, i.e. Kyoto Protocol and Paris Agreement, emphasize the importance of transitioning towards renewable energy sources as a means of reducing greenhouse gas emissions and mitigating climate change and providing support for the deployment of renewable energy technologies. The issue of high carbon emissions is not solely confined to the energy sector. Chapter 4 of this thesis investigates other industries, including transport, metals, and construction, which have been identified as significant contributors to greenhouse gas emissions. The global climate change regime has put forth various recommendations for these

sectors, emphasizing the importance of implementing policies and programs that promote sustainable and environmental solutions in these fields.

China has displayed an upward trajectory in foreign investments in alternative energy sources, including hydropower, wind power, and solar power while demonstrating a slight increase in coal and oil investments abroad from 2005 to the end of 2022, which is incomparable to the rise in alternatives. The surge in gas investments in this period may be attributed to the use of natural gas as a transitional tool and substitute for fossil fuels (IPCC, 2014; Levi, 2013).

The role of the international regime in this shift can be emphasized in a way that the regime, through its set of principles, provides a normative framework for its parties to adhere to their respective capabilities. Initially, China did not make any pledges under the UNFCCC framework. However, it has since pledged to peak its carbon dioxide emissions before 2030, achieve carbon neutrality by 2060, and increase the use of non-fossil fuels to around 25% by 2030. China's evolution from a reluctant actor to a proactive participant in the regime has been mirrored in its investment preferences. This shift from fossil fuel investments to alternative energy sources is evident, especially when considering that the number of alternative energy investments exceeded the number of fossil fuel investments for the first time in 2016, one year after the Paris Agreement. This trend has persisted since then.

The significant increase in emissions in China since the early 2000s has generated international pressure on the country to adopt a more responsible stance toward mitigating climate change. China's status as one of the leading emitters has made it challenging for the country to rely on the notion of the limited responsibility of developing countries and maintain a passive position within the global climate

change regime. As a result, the Paris Agreement has emerged as a platform that enables China to act as a "responsible power" and respond to international pressure (Li, 2016). The broader scope of responsibility outlined in the Paris Agreement framework, compared to the Kyoto Protocol, has provided China with the opportunity to shift its behavior. Thus, the regime-actor interaction has played a pivotal role in this shift from fossil fuels towards alternatives in foreign investment preferences.

Before this shift in foreign investment, there were indications of a regime-actor interaction between China and the global climate change regime. As it is known, the Kyoto Protocol provided mechanisms such as the CDMs to developed countries to invest in emission reduction projects in developing countries such as China, allowing them to achieve their emission reduction targets. China became a major recipient of CDMs, and this incentive mechanism provided by the regime resulted in a significant increase in alternative energy projects over time.

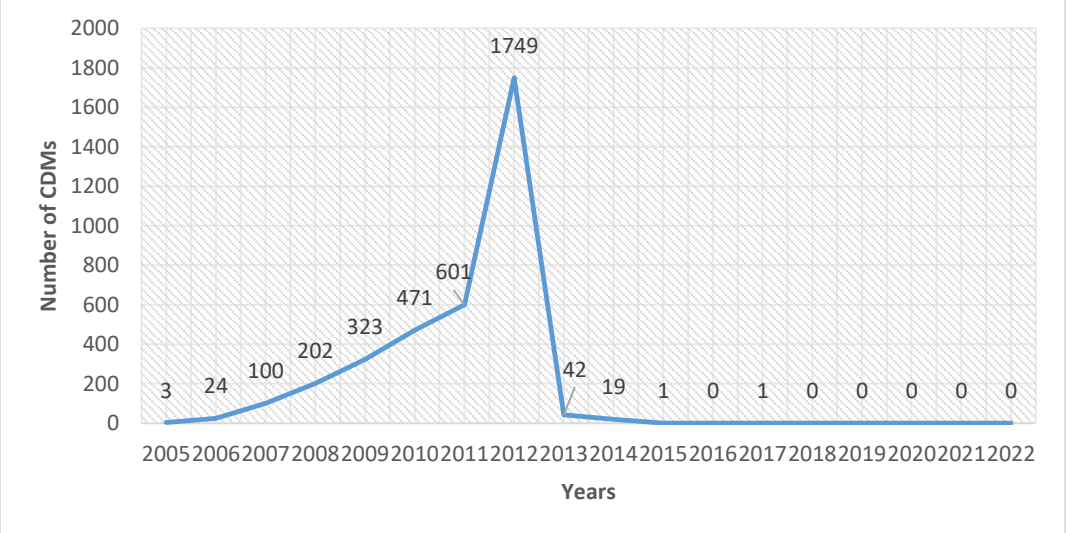

Figure 10. Number of CDMs received by China

[CDM-UNFCCC, 2022]

According to Figure 10, China has emerged as a prominent beneficiary of Clean Development Mechanism (CDM) projects. This outcome has yielded mutual benefits for both the donor and host countries, as it has enabled the former to make progress towards its climate targets while providing the latter with a set of advantages to alleviate the effects of climate change. It should be noted that CDMs are not merely a means for material gain for both parties; they also foster knowledge sharing and technology transfer, thereby increasing the potential for the recipient country to undertake its projects in the area of alternative energy. This requires the local administration to possess adequate know-how and awareness, as emphasized by Maosheng and Haites (2006) and Wang (2010).

Between 2005 and 2013, China experienced a pronounced increase in the number of CDM projects it received, however, this trend did not persist in subsequent years. The sharp decrease in the CDM projects received by China after its peak in 2012 can be ascribed to a confluence of factors, such as the rising demand for carbon markets instead of CDMs, China's domestic endeavors towards emission mitigation, stringent requirements for the actualization of CDMs, and the growing competitiveness in the renewable energy sector. It is possible to state that China has also gained technological knowledge about CDM investments during the time it received them. Despite the decrease in CDM projects after 2012, China has significantly increased its renewable energy projects and has ultimately become a global leader in this area. This increase has been evident both in terms of investment and energy production (Boqiang, 2018).

Despite this, China has taken assertive measures to promote its alternative energy strategies and augment its investments both domestically and globally, effectively establishing itself as a preeminent leader in renewable energy. In 2005,

China surpassed the United States in renewable energy electric generation and has continued to maintain its dominance in this field. By leveraging the Kyoto mechanisms as a learning opportunity, China has made significant strides in the development of alternative energy, as evidenced by the transformation of its investment preferences over the years. Through incentives of CDMs, the global climate change regime enabled China to acquire knowledge, expertise, financial and technological resources, and build international partnerships, all of which played a crucial role in the country's development of its renewable energy investments. This point highlights the perspective of liberal institutionalism, which suggests that offering incentives to increase benefits can expand the potential for cooperation and encourage participation from actors within a particular regime or institution. This may help to explain why China chose to remain in the regime over the years.

4.2.2 Cooperation on climate change: China and the U.S

The issue of China-US cooperation can be seen as an important reflection of regime-actor interaction in the context of the global climate change regime. This is because both countries have had significant emissions at the global level since they began to convey messages of cooperation in the early years[3]. The diplomatic negotiations between the two countries, such as the US-China Strategic and Economic Dialogue, have been effective in generating joint efforts and willingness to act in the fight

[3] As of 2009, China was the world's largest emitter of carbon dioxide (CO2), with 7,719,070 kt of CO2 emissions, while the United States was the second-largest emitter, with 5,156,430 kt of CO2 emissions (Climate Watch, 2022).

against global climate change, with environmental issues being included on the agenda (Lieberthal, 2009). The 2009 visit of US President Obama to China was also important for the development of cooperation. The Memorandum of Understanding to Enhance Cooperation on Climate Change, Energy and the Environment signed by the two countries at that time was significant in emphasizing the win-win situation that cooperation would create, benefiting both actors (Czarnezki, 2011). In this document, renewable energy, energy conservation and efficiency, research and development, clean air, and clean water were among the issues highlighted concerning cooperation. The cooperation between the world's two largest carbon emitters was considered quite important even before this. For example, Chandler (2008) noted that such cooperation could spread globally and prompt other developing countries to take a more active position, citing India as an example.

Despite the widely acknowledged failure of the COP15 summit held in Copenhagen in 2009, the ensuing years witnessed a pronounced shift towards a more collaborative approach between the United States and China. In particular, in 2013, the two nations jointly announced their intention to establish a Working Group on Climate Change, to be conducted under the auspices of the Strategic and Economic Dialogue (S&ED), thereby effectively fostering the advancement of their bilateral relations. The year 2014 marked a significant milestone, with the US and China signing a Joint Announcement on Climate Change, in which they made a range of commitments and expressed their resolve to further expand their collaboration across various fields, including research, clean energy, and technology. The significance of the joint statement, issued by the world's two largest emitters, was not only attributed to its perceived necessity but also to its potential to generate incentives for other nations to achieve emission objectives (Hope, 2014). Within the context of the joint

statement, one of the noteworthy aspects was China's commitment to specific objectives, which represented the first instance of the country discussing quantifiable targets.

In this context, two salient points demand attention. Firstly, during the early 2010s, when the United States and China were engaged in collaboration, the gap in emissions between the two countries was widening. While China's carbon emissions were increasing at an accelerating rate, the US's emissions were growing at a much slower pace, lagging significantly behind China. This dynamic enabled China to leverage the collaborative opportunities presented by the regime, to devise policies that could address international pressures. One tool to realize climate objectives was the increasing trend in China’s alternative energy investments abroad. Secondly, bilateral agreements also represent an integral feature of the climate change regime complex, as outlined by Keohane and Victor (2011). As such, the collaboration between China and the US was not limited to isolated agreements between the two nations but rather represented a form of cooperation that was aligned with the cooperative framework espoused by the regime. Therefore, this cooperative endeavor should be viewed within the broader context of actor-regime interactions.

4.2.3 Shifting institutional and normative structure

By examining the changes in institutional and normative structures within the context of regime-actor interaction, we can understand how China has rearranged its domestic policies over time as part of the international regime for global climate change. This provides insight into the signals that China has sent to the international community. In this section, we will focus on the effects of regime-actor interaction

on both normative and institutional structures, and how liberal institutionalism and regime theory are related to the observed shift. This analysis can be seen as a starting point for the realist response that will be discussed in Chapter 5.

4.2.3.1 Rearrangement of the domestic institutional structure

The interplay between China and the global climate change regime has resulted in various institutional and normative transformations in the domestic context since 1992. These shifts in institutional grounding and normative principles can be viewed as indications of how the international regime has influenced actor behavior. As China's interaction with the regime intensified, it became increasingly responsive to the domestic context, which was previously inadequate in realizing climate mitigation objectives. Over time, China's perception and performance regarding global climate change have evolved in tandem with its interaction with the regime, and this evolving institutional and normative stance has also impacted its foreign investment preferences. This section will elaborate on this point to demonstrate the extent to which regime-actor interaction has given rise to these changes.

In the early 1990s, the understanding of climate change in China was primarily confined to the scientific domain, with the China Meteorological Administration (CMA) serving as the main responsible institution. However, as the issue gained prominence, other administrative bodies such as the Ministry of Science and Technology (MoST) and the State Environmental Protection Administration (SEPA) were also included, with their respective technical and environmental mandates related to climate policies. Furthermore, China's participation in the Rio Conference in 1992 led to the involvement of the Ministry of Foreign Affairs

(MoFA) in the country's climate change policymaking processes. This initial domestic setting was characterized by the participation of multiple institutions with varying interests, reflecting the complex and multi-faceted nature of the issue at hand (Tamura and Zusman, 2011).

In 2003, the National Development and Reform Commission (NDRC) was established through the consolidation and renaming of several administrative and regulatory bodies responsible for economic coordination and development planning in China, including the State Development Planning Commission (SDPC), State Council Office for Restructuring the Economic System (SCORES), and the State Development and State Economic Trade Commission (SETC). This institutional reorganization resulted in the NDRC being entrusted with the formulation and implementation of climate and energy policies, which were previously dispersed across different ministries and agencies.

A significant outcome of these institutional changes was the centralization of climate policy authority within the NDRC, exemplified by the establishment of the National Coordination Committee on Climate Change (NCCCC) in 1998, which was later integrated into the NDRC. Comprising representatives from thirteen ministries with responsibilities related to climate change, the NCCCC was headed by the minister of the NDRC. This marked a shift in the contextualization of climate change policies in China, from being primarily scientific in nature to being intricately linked with developmental policy considerations. In 2007, National Leading Committee on Climate Change was established, whose members[4] are from several ministries and

[4] Members of the Committe are cited in the official website as follows: State Council, Ministry of Foreign Affairs, National Development and Reform Commission, Ministry of Science and Technology, Ministry of Industry and Information Technology, Ministry of Finance, Ministry of Land and Resource, Ministry of Environment Protection, Ministry of Housing and Urban-Rural Development, Ministry of Transport, Ministry of Water Resources, Ministry of Agriculture, Ministry of Commerce, Ministry of

administrative bodies which are related to climate change policy-making ("Brief Introduction of National Coordination Committee on Climate Change", 2006). The Council was designed to have authority over the National Development and Reform Commission (NDRC), as it was led by the Prime Minister rather than the Minister of the NDRC. Moreover, the Council not only played a role in policy coordination but also had the power to formulate policies independently and evaluate assessments made by the NDRC. This further consolidated policy centralization.

Despite the efforts of central authorities to centralize decision-making power, China's domestic context allowed local administrative bodies to exercise partial independence in local trade and business activities (Ahlers et al., 2016). This posed a significant challenge, as local bodies tended to prioritize economic development over environmental concerns. However, the 11th Five-Year Plan introduced a new economic restructuring approach that included a binding target of a 20% reduction in energy intensity, which changed the dynamics of central-local cooperation in climate change policies (Shi et al., 2022). This shift resulted in local administrative bodies aligning more effectively with the climate policies of the central government. Despite the increasing marketization of China's economy, the central authority maintained a high level of oversight over local units, even though some level of discretion was allowed for strategically less important matters (Edin, 2003). Therefore, a central-local equilibrium has been maintained to comply with energy-related policies of the development plan within the course of climate change mitigation.

Health, National Bureau of Statistics, State Forest Administration, China Academy of Science, China Meteorological Administration, National Energy Bureau, Civil Aviation Administration of China, State Oceanic Administration.

4.2.3.2 Normative ground

As China's relationship with the global climate change regime has developed over the years, we can observe an increasing emphasis on this issue at the domestic level in normative foundations. In this political system where the party ideology is fully integrated into the constitutional framework, norms have also evolved. While the development of norms may be seen as an extension and update of the CCP's ideological apparatus, the fact that climate change is included in the agenda is noteworthy. It is possible to say that there is a visible awareness of normative change during the period between 2005 and 2022.

Before the 17th National Congress of the Chinese Communist Party in 2007, the subject of climate change was conspicuously absent from the official reports delivered by the President. The only references made to climate were generally related to environmental issues and the efficient use of natural resources. However, Hu Jintao's address at the 17th Congress marked a notable shift in attitude as climate change was included as a significant topic. It is also noteworthy that two normative pillars, namely the Scientific Outlook on Development and the Harmonious Society, were launched during this period and subsequently incorporated into the constitution. Even though they both are essentially comprehensive normative themes, they specifically mention climate change as a concern that needs to be addressed.

This change is particularly meaningful when viewed through the lens of both regime theory and constructivism. Finnemore and Sikkink (1998) emphasized the close relationship between the propagation of norms and ideational factors and a state's interaction with international organizations, which facilitate socialization on certain levels. In the Chinese case, the International Panel on Climate Change (IPCC)

as an epistemic community, in conjunction with various NGOs and platforms institutionalized under the United Nations Framework Convention on Climate Change (UNFCCC) and annual Conference of Parties (COPs), played a crucial role in the proliferation of norms associated with global climate change mitigation. This increased visibility of international actors and organizations contributed to the adoption of climate change as a policy concern in normative circles.

The adoption of the Scientific Outlook on Development as a significant policy objective was a direct response to the imbalanced economic growth strategies that led to severe environmental degradation and inequalities (Marquis and Qiao, 2022). This concept was first introduced in 2003 and subsequently enshrined in the constitution during the 17th Party Congress in 2007. During the 18th National Congress of the Communist Party of China, President Hu Jintao highlighted several related themes, including environmental protection, collaboration on climate change with the international community based on the principle of common but differentiated responsibilities and respective capabilities, and the shift towards a low-carbon economy (The 18th National Congress of the Communist Party of China, 2012).

These points signify a response to the uneven growth strategies pursued by Chinese policymakers. At the domestic level, the deterioration of the environment in urban areas and the increasing levels of air pollution became a significant political concern that required attention (Jin et al., 2016). At the international level, China's engagement in the international climate change regime has been on the rise, leading to an enhanced grasp of the norms, values, and knowledge surrounding the issue of climate change. The growing involvement of actors in the international arena has facilitated a learning and internalization process whereby actors become

knowledgeable about the norms, as evidenced by China's increasing engagement in the global climate change regime (Johnston, 2008; Tamura and Zusman, 2011).

Apart from the Scientific Outlook on Development, the CCP has also employed developing another major ideational pillar called Harmonious Society that aimed to establish an equilibrium between humanity and nature and to increase the governing capacity of the party in the political system with Confucian and another traditional set of values (Guo and Guo, 2008). The concept was launched first in 2004 at the 16th CCP Congress by President Hu Jintao. Similar to the previous concept of Scientific Outlook on Development, a Harmonious Society was also like a response to the negative externalities of uneven economic development such as environmental degradation and socioeconomic inequalities (Geis and Holt, 2009; Ngok and Zhu, 2010). In the Chinese domestic context, the co-existence of the Harmonious Society and Scientific Outlook on Development has acted as a synergistic force, complementing each other towards mitigating the costs associated with marketization imbalances.

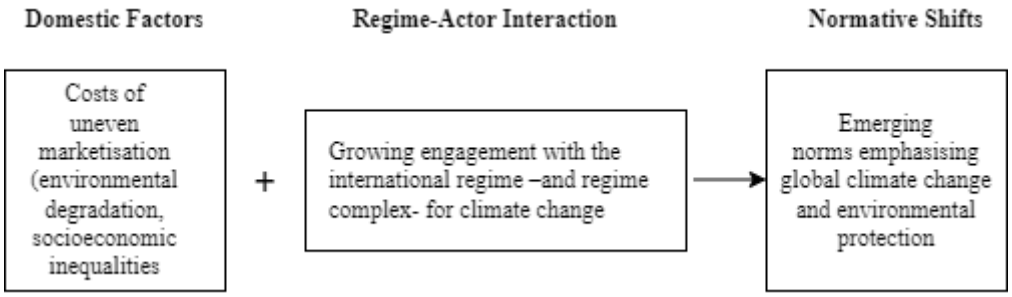

Figure 11. Regime interaction and the emergence of normative change

In the context of China's interactions with international institutions, the relationship between the regime and China has led to changes in foreign investments

in the energy sector, with a shift from fossil fuels to alternative energies. Additionally, there has been collaborative engagement with the United States on global climate change and an evolution of institutional settings and emerging normative principles. This shift is considerably evidenced by the emergence of norms as a result of regime-actor interactions, as depicted in the figure above. This reflects a liberal institutionalist perspective on China's changing position. However, this perspective will be challenged in the following chapter from a realist standpoint. Realism posits that China's actions and policies are shaped by the incentive structure that allows it to gain material and reputational gains.

CHAPTER 5
THE REALIST RESPONSE TO REGIME-ACTOR INTERACTION

In the previous chapter, China's engagement with the international regime for global climate change has been explored in a regime-actor relationship that manifested itself with the shifts in investments from fossil fuels towards alternatives, cooperation with the U.S on climate change, and the change in domestic institutional structure and normative ground on which climate change mitigation has been put into the agenda. In general, this was a liberal institutionalist and regime theory-based explanation that gives weight to cooperation and absolute gains. In this chapter, however, this perspective will be challenged from a realist lens that characterizes China's rising power as a significant factor, the shifting international balance of power towards multipolarity, and relative gains concerns at the very center of its shifting actions regarding global climate change.

This chapter will elaborate on the main argument held in this thesis which is that while liberal intuitionalism and regime theory may offer partial explanations of China's shifting policies, it is primarily about the incentive structure that China prioritizes in its actions. China, to put it more specifically, has always emphasized the supremacy of national interests over climate change mitigation policies and acted only based on its incentive structure. In the areas where its national interests and the regime priorities overlap, we see compliance but the main determinant has become its interest maximization calculations that gave way to the growing involvement with the regime. After briefly harking back to the realist responses to liberal institutionalist and regime theory explanations elaborated in the literature review

section, the strategic priorities and the analysis of the accompanying incentive structure will be assessed.

5.1 The dialogue of the opposites

In reality, the foundational tenets of liberal institutionalism and the regime theory examined beneath its purview do not invalidate the interest-based narrative provided by realism. Within the perspectives of these two theoretical approaches, there is no negation of the structural properties of the international system. Nevertheless, they adopt a more optimistic view towards actor behavior when compared with realism, as they emphasize cooperation and absolute gains. Analogously, the same holds for constructivism. The point is that the prevailing characteristics of the international system are not a priori, but rather are molded by factors such as interaction, socialization, and norm entrepreneurs; in short, they are constructed.

Examined through the empirical lens of a shift in foreign investments in the Chinese context, the fundamental argument held in the thesis is that China acts by a specific incentive structure when determining its investment preferences in the international system, cooperating with the United States on climate matters, or realigning the institutional and normative framework to reduce carbon emissions. In other words, the key factor that ought to be accorded weight is not the regime or the liberal institutional framework, but rather China's strategy centered on maximizing its interests.

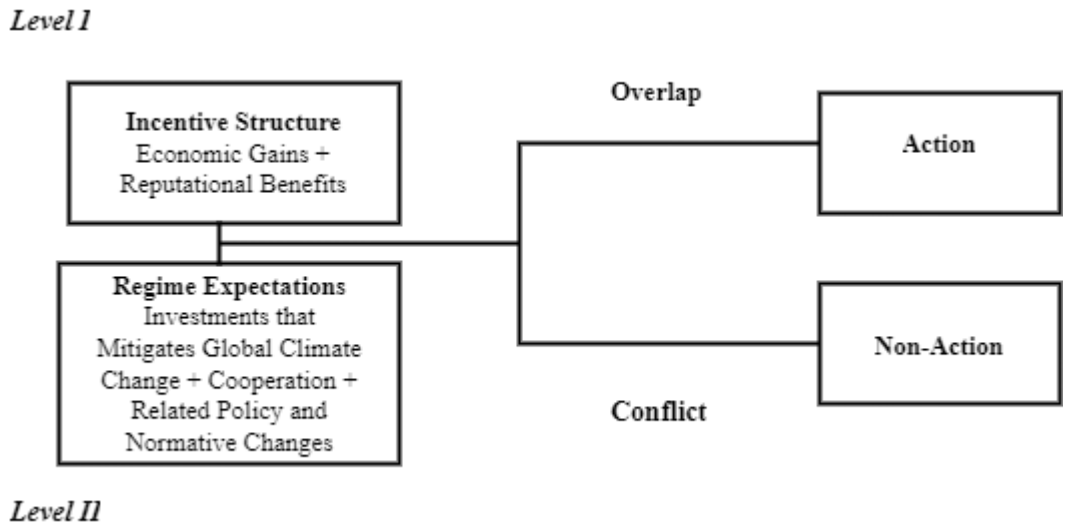

Figure 12. Incentive structure with two paths

As seen in Figure 12, the fundamental factor that determines the outcome of the regime-actor interaction in the context of climate change mitigation is the harmony or conflict between interests and expectations at the two levels. Harmony brings about action, whereas conflict results in inaction. It is incorrect to say that there is no interaction between the regime and the actor, as China has been observed to attend all COP meetings regularly since 1995 and has increased its active participation. Of course, this engagement has led to a certain level of awareness and a corresponding learning process. In this process, the number of delegates sent by China to COP meetings has also increased (Tamura and Zusman, 2011). However, the shift from fossil fuel to alternative energy investments in China's foreign investments is mainly driven by the motivation to become a leader in renewable energy and to project its rising power on the international stage as a responsible global power, rather than the motivation for absolute gains resulting from cooperation, as explained by the perspective of liberal institutionalism or regime

theory. When the incentive structure created by these motivations is suitable, China has preferred to pursue a proactive climate change policy.

To elucidate the overlap-conflict mechanism, it may be instructive to examine the Byrd-Hagel Resolution of 1997 as an example. This resolution posed a formidable obstacle for the United States to ratify the Kyoto Protocol, which mandated the reduction of emissions in the U.S. The Senate Resolution passed unanimously in 1997, stipulated that the U.S. would not participate in any climate agreement that suggested legally binding emissions targets, as this would impede economic growth priorities. The withdrawal from the Kyoto Protocol during the Bush Administration, which was deemed unfair and detrimental to the U.S. economy, had its legislative origins in the Byrd-Hagel Resolution. The resolution also impacted the stance of subsequent administrations, including Clinton, Obama, and Trump, on international climate change negotiations. The case of Byrd-Hagel highlights how deviating from or conflicting with the incentive structure can affect an actor's behavior in climate policies. The subsequent section will provide a detailed account of this incentive structure before delving into a more detailed examination of China's shifting investment priorities.

5.2 The realist calculus and the incentive structure

To comprehensively understand China's approach to investment allocation and climate action, it is necessary to delve into the realist logic of pursuing an incentive structure that prioritizes material and reputational gains, and also the operation of a multipolar international system as a trend in the international system is evolving. According to Rosecrance (1966) and Väyrynen (1995), in a multipolar international

system, states are granted greater flexibility and potential for interaction. Within this context, it is expected that China will promote multipolarity and expand cooperation with other developing countries to counteract current international rules that fail to align with China's interests (Saunders, 2015). Additionally, as Miaofa (2001) suggests, in a multipolar world, there is ample opportunity for China to cooperate with the United States and promote multilateralism in international relations. This is particularly evident in China's increased engagement with other countries over the past two decades through various institutions and regimes such as the Association of Southeast Asian Nations (ASEAN), the Asia-Pacific Economic Cooperation (APEC), the Shanghai Cooperation Organization (SCO), the World Trade Organization (WTO), and the Missile Technology Control Regime (MTCR), which span a range of areas from economics to missile control (Jalil, 2019).

The significance of constructivism in understanding China's construction of a new identity as a responsible great power that prioritizes climate mitigation in its foreign investments is of equal importance. This is an illustration of how China strategically accommodates the incentive structure through the construction of an international identity that signals its rising power status to the international community. The transition from a developing country image that traditionally refrained from taking responsibility to a more proactive identity that positions China as a leading, responsible actor is noteworthy. This normative shift is evident in the emphasis on climate change and environmental degradation in the Scientific Outlook on Development and Harmonious Society, which are two normative pillars President Xi Jinping used to build this image.

The center of this argument is not the liberal institutions or the regime driving the normative shift, but the necessity of framing China's identity in the international

arena. As such, the normative shift complements and frames the incentive structure, as evidenced by the fact that the shift in foreign investments from fossil fuels to alternative energies occurred only after the emergence of an incentive structure that promised material and reputational gains, even though these normative conceptions appeared in the early and mid-2000s. Overall, the emergence of changing investment preferences depends mainly on the presence of a concurrent incentive structure that encompasses strategic gains, material benefits, and reputational returns. Norms may act as framing mechanisms in this process but do not have a direct and independent impact on the observed outcome.

5.3 Cases in point

This section will offer a comprehensive analysis of how China's transition in investment preferences can be scrutinized through the lens of opportunity-seeking. In addition to the cases that are primarily associated with foreign investments and cooperative engagements, as detailed in Chapter 2, cases related to climate funding and fossil fuel investments will also be included to show how the incentive structure is the primary driver of China’s climate actions in the climate negotiations and promises.

5.3.1 Greening the BRI and the financial incentive structure

The first case that demonstrates China's shifting approach to foreign investment is illustrated by its endeavor to transform the Belt and Road Initiative (BRI) into an eco-friendly investment undertaking. This was first introduced in 2016 in response to mounting criticisms concerning the adverse environmental impacts of the

infrastructure projects conducted under its investment portfolio, and to re-establish its global image (Carey and Ladislaw, 2019). As a result, several working groups, institutions, initiatives, and forums were created within the BRI to explore strategies for achieving environmentally sustainable financing for its projects.

Apart from the institutional design of greening the BRI, China has worked effectively to provide financial tools such as green bonds and green credit that help fund projects and investments that are expected to yield sustainable and environmentally positive outcomes. The key emphasis here lies in the extent to which green finance can generate tangible benefits for China and contribute to its broader incentive structure.

Green bonds are debt instruments specifically designed to fund climate change and environmental projects and are typically issued by governments, multinational banks, or corporations (Tukhanen, 2020). China has emerged as a significant global supplier of green bonds and has witnessed significant demand for such bonds. According to the Climate Bonds Initiative's comprehensive data for the period from 2014 to 2022, China issued green bonds worth approximately $250 billion, ranking it second globally, behind the United States (Climate Bonds Initiative, 2023). The issuance of green bonds has enabled China to tap into the growing interest of international investors in environmentally responsible investments and access a new source of capital to finance its green initiatives. Additionally, green bonds have contributed to the development of China's domestic green finance market by establishing standards and best practices for green investments. This has enabled China to channel its vast domestic savings into environmentally sustainable projects and support the shift towards a low-carbon and sustainable economy. As reported by Reuters (2022), the China Securities Regulatory Commission (CSRC) has recently introduced more

stringent requirements for green bonds, stipulating that the proceeds from these bonds must be invested entirely in environmentally friendly projects. This represents a significant increase from the previous requirement of 70% investment in green projects.

In addition to green bonds, another green finance tool utilized by China within the scope of greening the BRI is green credits. Green credit refers to financing or lending practices that support environmentally sustainable projects or businesses (Weber, 2016). The concept of green credit is focused on promoting investments that are consistent with environmental protection and sustainability objectives. This mechanism allows China to procure resources for tackling climate change and environmental concerns, also empowering lending banks to preclude the implementation of ecologically deleterious investments by debt-receiving corporations (Aizawa and Yang, 2010). When it comes to the benefits that the green credit mechanism provides to China, firstly, in a financial architecture where capital has become globalized, the mechanism allows China to provide funds for both domestic mitigation targets and investments under the Belt and Road Initiative (BRI). For example, green credits have been used to finance renewable energy investments under the China-Pakistan Economic Corridor (CPEC), which is one of the significant investment landscapes within the BRI in Pakistan (Nedopil and Aslam, 2023). Bai et al. (2022) have demonstrated the effectiveness of green credit in promoting investment projects aimed at reducing carbon emissions within China's mainland. The utilization of such credit mechanisms domestically is aligned with China's commitments to achieve a carbon peak by 2030 and carbon neutrality by 2060.

Examining the green bond and green credit mechanisms in the context of China's efforts to green the BRI, a complex interplay between the country's goal of integrating with global capital and the imperative to address environmental concerns becomes apparent. By recognizing this incentive structure, China has signaled its commitment to shifting investment priorities towards environmentally-friendly options, in response to mounting international pressure, and has effectively utilized the opportunities presented by the financial structure. Without the availability of such green financial mechanisms within the global capital system, China would have been faced with significantly higher expenditures for greening the BRI or deferred investment in alternative energy sources. The employment of green finance instruments has facilitated China's achievement of its carbon emission peak and neutrality objectives by 2030 and 2060, respectively. These mechanisms have spared China the need to allocate distinct funding from its central budget and provided a more straightforward means to intensify its efforts to reduce emissions and achieve climate change mitigation. Thus, China's incentive structure has effectively aligned with the expectations of sustainability and climate-friendliness given by the global climate change regime, resulting in concrete actions. Ultimately, this incentive structure can be summarized as a means of facilitating easy access to financing and reducing international pressure on China's environmental policies.

5.3.2 BRI investment landscape and the incentive structure

The second example that can be associated with the issue of investment shift and the incentive structure is related to the benefits of this green transformation within the scope of the BRI. Similar to the first case discussed above, the current scenario

underscores the overlap between China's national interest framework and the expectation of engendering a sustainable and eco-friendly shift in investments under the climate change regime. However, the factor of China's interest and incentive structure, which is demonstrated through its actor behavior manifested in investment shifts, portrays it as a proactive participant. Consequently, the realist considerations that dominate the prevailing discourse have aligned with the regime's expectations that underline the need for sustainable and climate-friendly investments.

In the context of China's geopolitical gains, the Belt and Road Initiative (BRI) has been examined extensively, with particular attention paid to the opportunities it presents. These opportunities include large-scale infrastructure projects and other investment channels that limit the containment of the United States' encirclement in the Asia-Pacific region, controlling the rise of India, and achieving sectoral superiority in the host countries through investment projects (Clarke, 2017; Karpathiotaki et al., 2021). China has fueled this geopolitical incentive structure by aligning its interests with those of the countries in which it invests in Asia, for example, through the cooperative win-win situation that is envisaged (Deng, 2018). In addition to the aforementioned analyses, Fukuyama (2016) has examined the issue of BRI and strategic gains by exporting the state-led authoritarian development model as an alternative to what democratic countries offer. Therefore, the incentive structure can also be interpreted as paving the way for the global reputation of a China-cent red development vision in a wider context.

Moving from the general to the specific, an overlap arises between China's incentive structure and the regime's expectations when positioning the shift from fossil fuels to alternatives through BRI. In other words, the increase observed in alternative energy investments provides significant material and reputational

benefits. For instance, Uganda has a more favorable perception of Chinese investments instead of the United States, as China's normative foreign policy vision, which foresees less intervention, builds popularity in host countries (Abb, 2021). This example is noteworthy in terms of the normative framing of the incentive structure, as a scenario where realist considerations dominate rather than liberal institutions and regimes is observed in the occurrence of normative shifts mentioned in the previous chapter. To put it more differently, while there has already been a growing normative awareness in China through the proliferation of normative pillars of Scientific Outlook on Development and Harmonious Society, it could become actualized only if it is projected and framed within the accompanying incentive structure.

Within the context of China's investment landscape, the African continent occupies a significant position, as evidenced by the increase in the BRI investments directed toward African and Middle Eastern countries from 8% to 38% (Nedopil, 2021). Between 2010 and 2015, the alternative energy sector attracted a majority of investments, indicating a rising trend (Erata, 2018). Notably, hydropower constitutes a significant proportion of investments in the alternative energy sector, facilitating China's access to the Nil Basin and contributing to its domination of the energy sector through electricity production (Tandoğan, 2017). This phenomenon highlights the convergence of interests and expectations in China's investment strategy, which aims to achieve both climate-related goals and strategic gains in the electricity sector. In areas such as Sub-Saharan Africa, where water resources are scarce and play a critical role in electricity production and agricultural activities, China's hydropower investments transcend mere portfolio diversification (Abb, 2021). For instance, in Pakistan, China's investment priorities, including a significant emphasis on

electricity, have become integral to nation-building efforts and further strengthened the alignment between China and Pakistan.

In terms of the overlap between the incentive structure and expectations of the international climate change regime, another noteworthy aspect pertains to the reinforcement of China's global responsible power image across its investment landscape. This dimension is closely linked to a constructivist perspective that accords priority to norms and their shaping impact, as well as to realist considerations of paving the way for China's ascent as a rising power with significant economic clout. Investing in alternative energy sources, even in the absence of any obligatory pledge mandated by the international climate change regime, can yield two primary benefits. Firstly, it can bolster the cultivation of a responsible power image in the countries where investments are made. Secondly, it can fulfill the normative expectations, albeit not obligatory for non-Annex I nations, of the international climate change regime. Referring to the Figure above, the observed outcome represents action and is an immediate consequence of the overlap between the incentive structure and expectations of the global climate change regime.

5.3.3 Clean development mechanisms and the incentive structure

The Clean Development Mechanism (CDM), as one of the Kyoto Mechanisms, has contributed to China's proactive engagement in the international climate change regime. The development of an incentive structure, wherein China was initially a recipient of alternative energy investments, has led to the widespread dissemination of technology and know-how practices, serving as the first component. The culmination of this trend was manifested in the peak of CDM projects in 2012,

followed by a gradual decrease in investments. This decline can be attributed to China's rapid development and acquisition of sufficient technical and infrastructure knowledge. With the launch of the Belt and Road Initiative (BRI) in 2013, China began to make alternative energy investments independently, effectively applying the knowledge and experience gained from CDMs.

The second element of the incentive structure that can be attributed to CDMs is their role in boosting China's shift toward alternatives. This shift was demonstrated by the greening of the BRI, as mentioned earlier. The third component is China's acquisition of technical knowledge and expertise through CDMs, which has enabled the country to attain global leadership in alternative energy production, particularly in wind, solar, and hydro investments at the domestic level. This has had a significant impact on reducing energy dependence and supporting the country's responsible power image in the international arena.

Lastly, CDMs have been effective in providing a tangible response to increasing international pressure. Therefore, the elements of the incentive structure can be summarized as follows: the transfer of technical knowledge, the promotion of domestic energy diversity through CDMs, the increase in alternative investments through the greening of the BRI, the attainment of global leadership in alternative energy production capacity, and the reduction of mounting international pressure.

It is worth considering a counterfactual analysis that challenges the argument that downplays the importance of the liberal institutionalist framework and regime theory, which asserts that since Clean Development Mechanisms (CDMs) are a product of the international climate change regime, these theories are more explanatory. However, while it is undeniable that the regime has had a positive

impact on accessing these clean mechanisms, it is crucial to highlight the role played by the incentive structure. CDMs serve as incentives that motivate parties to comply with the regime, but they are operationalized because of China's interest calculations. China seeks to gain both material and reputational benefits, and thus its proactive stance is driven by these interest calculations and its ability to position itself within the incentive structure. To put simply, the proactive role played by China in the realm of climate change is not solely due to the regime, but rather is a result of the interplay between the regime and the incentive structure, reflecting an overlap between China's strategic interests. Before 2005, China ranked among the top in terms of renewable energy capacity, with the United States holding the first position. However, China's desire to become a leader in renewable energy and its realization that this goal aligned with the expectations of the regime played a significant role in China's transformation into a host country for CDMs, despite some initial skepticism (Tangen et al., 2001).

5.3.4 Cooperation with the U.S and the incentive structure

In 2014, the world's two largest emitters, China and the U.S., engaged in climate cooperation. Before this, they had established dialogues to share green technology and scientific research. However, the 2014 cooperation was particularly noteworthy as China, for the first time, announced its intention of achieving a carbon peak by 2030, a year before the Paris Agreement was signed in 2015. During the COP15 in Paris, China made its intention much clearer and stated its target in doing so. In 2021, both countries made two joint announcements, one in April and the other in November during the COP26 in Glasgow. These announcements were centered on

investment-based areas of cooperation, including energy, infrastructure, innovation, and technology. Also, they were including frequent references to the joint announcement in 2014.

When it comes to the incentive structure that underpins the cooperation between China and the U.S., several key factors can be identified. First and foremost, China stands to reap significant benefits from increased technology and innovation cooperation with the U.S., as it has previously done within the context of CDMs. Notably, many of the terms agreed upon between the two countries relate to energy and technology cooperation, which are essential for driving economic growth and increasing returns on investment. Secondly, there is a clear incentive for both China and the U.S. to strengthen their bilateral ties and reduce the areas of conflict between them. As China's economy continues to grow, the two nations have experienced some ups and downs in their relationship, with U.S. foreign policy evolving towards a more cautious stance. Cooperation on climate change and related issues is seen as a way to bring positive yields for both economies and contribute to material gains. Finally, and most importantly, the cooperation between China and the U.S. has also helped to bolster China's global image as a responsible power. As one of the largest emitters of greenhouse gases alongside the U.S., China's willingness to cooperate sends positive signals to the international community that it is committed to tackling climate change and is open to constructive communication. By demonstrating its commitment to global efforts to combat climate change, China has become able to enhance its reputation as a responsible international actor.

The international regime for global climate change has facilitated cooperative communication between China and the United States. While the regime itself played a role in creating this opportunity for cooperation, the driving force behind the

alignment was the incentive structure that both parties could yield. The liberal institutionalist argument that absolute gains matter more than relative gains is not sufficient to explain the China-US cooperation on climate change, as the distinction between absolute gains and relative gains is not clear-cut due to the non-binding nature of the joint announcement. The text of the joint announcement merely reflects the wills of the parties, without specifying sanctions in case of non-compliance, thus the reputational expectation envisioned by China was much more important than the content and form of the announcement. The joint announcement was also a useful tool for China to respond to growing international pressure.

It is worth noting that the joint announcement included commitments by China to increase the share of non-fossil fuels in its primary energy consumption to 20% by 2030, which would require significant investments in renewable energy infrastructure. This suggests that China may have also been motivated by material gains, such as the economic benefits of transitioning to a low-carbon economy. However, it should be noted that the commitment to shift from fossil fuels to alternatives had already been made by China, so the joint announcement of cooperation was simply a reaffirmation of these previous targets. Nonetheless, the reputational concerns outweighed other factors because China and the United States are the two largest emitters of greenhouse gases, and their cooperation signals a global commitment to hold a status of responsible power for climate action. In addition to cooperation in science, technology, and innovation, reputational gains were a significant factor in the incentive structure that facilitated cooperation between China and the United States on climate change. The expectation of the international regime for increased cooperation among parties was also met. Thus, these two levels overlapped, and an observable outcome was produced.

5.3.5 Transport investments and the incentive structure

In our previous analysis, we highlighted that the transport sector held an 18% share in investment preferences between 2005 and 2022. Examining the details, we observed an increase in all sub-sectors of automotive, aviation, railway, and shipping in these investments, as depicted in Figure 5. However, the 18% share and the increasing trend in the four sub-sectors were not sufficient to suggest a shift in investment patterns, as they merely provided quantitative observations. The automotive sub-sector displayed superiority over other sub-sectors with an increasing trend. Thus, the majority of transport investments are dominated by automotive.

Analyzing the qualitative aspect of this point, we observe a shift from environmentally damaging action to climate-friendly action and preferences in the context of combating climate change. According to The Electric Vehicles World Sales Database (2022), China alone held a 59% share in global electric vehicle production in 2022. Furthermore, the production and profitability of vehicles are predicted to increase between 2022 and 2027, as per market statistics (Statista, 2023). Hence, similar to the transition from fossil fuels to alternatives in energy, there is a shift observed through the increasing trend in automotive investments.

Regarding its connection to incentive structure, China is benefiting economically from its dominance in the electric vehicle market. Moreover, it can convert this dominance into a reputational gain through its global trade, as it holds a leadership position in this area. In 2021, 25% of the global electric vehicles exported were from China, which increased to 35% in 2022 (IEA, 2023). Additionally, China occupies a significant position in the production and trade of equipment such as lithium batteries used in these vehicles. Thus, the incentive structure created by

economic and reputational factors overlaps with the expectations of the climate change regime, leading to a climate-friendly action as an observed outcome.

5.3.6 Real estate sector investments and the incentive structure

One of the sectors we examined that ranked among the top four in China's foreign investments in Chapter 2 is the real estate sector. This sector is an important branch that falls under the main investment sector of the BRI, which is infrastructure projects. There has been a significant increase in both the construction and property sub-sectors of investments in this sector. Whether this increase represents a shift towards more sustainable investments cannot be determined solely by quantitative growth. However, when viewed in the context of domestic policy-making, there has been a serious push towards sustainability in the country. The Three-Star Rating system can classify buildings as "green" based on environmental qualifications such as energy efficiency, and every structure must receive at least one-star rating on this assessment scale, with government incentives available for those achieving higher ratings (Becqué et al., 2019). Additionally, development plans anticipate a further increase in this target.

Within this context, the green transformation in the construction sector appears to be limited to the domestic level. Investments in property acquisitions generally involve purchasing buildings such as plazas and skyscrapers in foreign countries, while investments in construction tend to focus on residential complexes and public buildings. While it is still early to speak of a shift in investments towards sustainability in this area, the Chinese government announced its goals for this issue in 2021 with the "Guidelines for Greening Overseas Investment and Cooperation"

and in 2022 with the "Guidelines for Ecological Environmental Protection of Foreign Investment Cooperation and Construction Projects" (Nedopil, 2022). Looking at these documents, investors are advised to apply international standards to construction projects. The fact that this normative and principled aspect is presented as guidelines indicates a certain level of awareness and shift compared to the past. Although these fundamental principles have been emphasized before, their sector-specific application is supportive in this context.

In this regard, if we examine China's incentive structure that encompasses its achievements, the primary economic dimension is the pre-informing and guiding of its investors for a construction sector vision that will emerge in the short or medium term in line with China's sustainability principle and climate change mitigation targets under the global climate change regime. Thus, as the necessary know-how for the existing construction investment capacity in the country has already been obtained, the adaptation in foreign investments will be easily achieved. China's current situation in this sector has a rationale similar to the increase in natural gas investments in the context of energy. Just as the increase in investments in the natural gas subsector occurs together with alternative energy but at a lower level, it stems from being a transitional form. Similarly, the realist calculation envisaged by China here is to first carry out this development within its own country, and later, as the regime's expectations in this regard increase, to make the necessary shift in investments. Therefore, the economic dimension of the current incentive structure is to move slowly while taking into account the cost of fully adapting these strategies and providing technical knowledge and domestic initiatives during this period.

On the reputational side of the incentive structure, it lies in China's ability to balance the increasing international pressure on construction investments by

achieving this transformation. Starting to achieve environmental and sustainable transformation goals domestically and guiding its investors with these principles will provide China with a reputational return as part of its responsible power image. However, both economic and reputational gains in this sector have yet to reach a significant level. To close this gap, China is prioritizing a shift towards climate-friendly investment branches, primarily in energy. How this strategy will change in terms of construction and property is parallel to the binding force of normative guidelines and the will demonstrated by both investor and investment recipient countries to adhere to international standards.

5.3.7 Loss and damage fund and the incentive structure

The preceding examples have provided counterarguments to the explanations grounded in liberal institutionalism and regime theory. These arguments were analyzed in the context of the alignment between incentive structure and regime expectations. While each example featured actions and their consequences, instances of non-action were also observed. These instances correspond to the conflict scenario depicted in the Figure. An exemplary case is the Loss and Damage Fund that was agreed upon during COP27 in Egypt in 2022. This case provides a nuanced understanding of the non-action outcome that stems from the conflict between regime expectations and the incentive structure.

The Loss and Damage Fund is a crucial financing mechanism designed to address the adverse impacts of global climate change, including rising sea levels, floods, desertification, and forest fires, on developing countries (UNEP, 2022). However, details on funding countries and amounts committed to the mechanism are

not determined yet. This mechanism, in essence, represents an important economic consideration for each actor in the climate change regime. China, along with the G77 countries, has been at the forefront of the discussions and efforts to promote the mechanism's adoption. Nonetheless, China has explicitly communicated that it will not provide any cash payments (Lee, 2022). China's justification for its non-participation in the Loss and Damage Fund was grounded on its categorization as a developing country within the regime, as opposed to its actual emissions record. This serves as a classic example of China's tendency to avoid making concrete commitments by citing conventional practices. However, China's refusal to contribute to this crucial funding mechanism appears to contradict its proactive image, which has been bolstered by its investment shifts and increased normative sensitivity to regime expectations.

The observed result, in this case, is a consequence of the non-occurrence of the overlap scenario discussed in the Figure. For China, contributing to the Loss and Damage Fund would entail primarily an economic burden. If China were to adopt a policy that is not in alignment with the developing country category it cites in the regime and accepts funding, it could put China in a position to make concessions on other issues in the future. Despite the anticipated reputational gains being high, the material benefits of the incentive structure are not significant enough, which explains China's reluctance to provide funding. To counterbalance the reputational loss that may result, China has taken a proactive approach by engaging in discussions and pushing developed countries to the negotiation table. This example thus reveals a result that is largely influenced by realist considerations.

China envisions achieving reputational gain through negotiations in the Loss and Damage Fund, similar to the situation that arose for China during COP15 in

2009 regarding the commitment of developed countries to a $100 billion fund. As part of the G77 plus China alignment, China has criticized the failure to fully achieve this target and China's Special Envoy for Climate Change, Xie Zhenhua, has emphasized this issue during COP27. Thus, China creates room for maneuvering by attributing the material responsibility to developed countries, based on their historical emissions record, through the rhetoric it has developed at the negotiation table to achieve reputational gain when it comes to funding. This situation is another example of the relationship between the incentive structure and regime expectations. Being proactive in considering financial gain when it comes to investment shifts, China not only avoids issues related to funding but also acts as a defender of developing countries to some extent.

5.3.8 Fossil fuels and the incentive structure

Within the context of investments and foreign trade in the realm of fossil fuels, it is prudent to examine a particular situation in China through the lens of realist considerations. President Xi Jinping of China, in his speech at the 2021 United Nations General Assembly, committed to refraining from investing in new coal plants overseas. This pledge aligns with China's 13th Five-Year Plan for Development, which was introduced in 2016. Nonetheless, it is worth noting that the pledge only pertains to fresh investments, and pre-existing investments will continue to operate. In this vein, the construction of a 300 MW coal plant in the Pakistani port city of Gwadar persists, and officials from both Pakistan and China have asserted that the no-coal plant pledge does not affect the actualization of this project (Ebrahim, 2023). Analyzing this example through the lens of incentive structure and

regime expectations, it can be argued that the observed outcome is a calculated action. While China acted proactively in its commitment to refrain from opening new coal plants, it did not make any commitments regarding ongoing or previously agreed-upon investments in coal factories. For China, which derives material gains from existing and agreed-upon investments, this commitment has resulted in reputational gains. Moreover, this situation has also served to meet regime expectations. The increasing investment in alternative energy production projects under the BRI initiative is expected to compensate for the investment void created by the cancellation of new coal factories. In other words, the maneuvering space provided by the investment shifts toward green projects under the BRI has enabled China to commit to refraining from opening new coal plants.

In the context of coal investment and usage, China and India insisted on the use of the term "phase-down" instead of "phase-out" regarding coal usage in the joint text at COP26 (Hook et al., 2021). This decision can be interpreted as a calculated action taken by these two countries, which are currently unable to overcome their dependency on coal in the short term. China has repeatedly emphasized its willingness to accelerate the transition from fossil fuels to clean energy in its five-year plans and party congress speeches over the last decade, and there is an established normative trend in this regard. The increase in investment in natural gas energy, despite being a fossil fuel, is evidence of this trend's impact on investments. Natural gas is preferred as a transitional form of energy investment, along with alternative energy, indicating China's future goals. However, the high economic cost of this transition in the short term prevents the formation of an incentive structure and we observe a non-action outcome. Therefore, the stance taken at COP26 and the

trend of increasing investment in natural gas reflect a similar attitude of calculated realist considerations.

This chapter shed light on investment shifts and challenges the liberal institutionalist perspective and regime theory. Firstly, the concept of incentive structure was introduced as a function of realist considerations and its relationship with climate regime expectations was explored. This examination revealed two possible scenarios: action and non-action. Subsequently, the chapter explored how the incentive structure, which comprises economic and reputational returns, overlaps with regime expectations in the context of greening the BRI and its geopolitical consequences. Additionally, the chapter contextualized CDMs within this framework and demonstrated their contribution to the incentive structure. The same framework was applied to the 2014 China-US cooperation on climate to show how China's diplomatic posture may produce a positive responsible power image in the international community's eyes. Furthermore, the chapter examined transport investments, with a particular focus on the auto and electric vehicle sectors, to demonstrate the observed overlap between the incentive structure and regime expectations. In addition to these instances, which are indicative of the overlapping scenario, the chapter highlighted China's reluctance to fund the Loss and Damage Fund, its stance on the use of coal during climate negotiations, and its use of calculated action in pledging not to invest in new coal plants within this framework. These examples are significant as they illustrate how on-action outcomes can be observed in scenarios where the incentive structure is not fully formed.

CHAPTER 6
CONCLUSION

6.1 Summary

In this study, I focused on examining the shift in China's foreign investments between 2005 and 2022 in terms of its strategy to maximize its interests within the framework of the global climate change regime. Through my analysis, I argued that China's proactive actions on climate change are primarily motivated by an incentive structure that consists of economic gains and reputational benefits. In other words, China is more likely to take action on climate change if the normative and policy-based behavior changes expected by the regime align with China's driving realist considerations in the incentive structure. If not, China is unlikely to change its behavior solely through regime-actor interaction. After analyzing the weight of investment sectors during the examined period and studying the relevant data sets, I approached the topic through the lens of various international relations theories. Given that China is not only a member of the global climate change international regime under the UNFCCC but also a rapidly emerging actor on a global scale with its growing economy, I found it appropriate to take this dual identity as a significant factor that leads China to prioritize realist considerations based on the incentive structure. To achieve this, I examined how theoretical paradigms such as realism, liberal institutionalism, two-level game, regime theory, and constructivism are generally discussed in the context of global climate change and specifically in the context of China's actor behavior. Using these theoretical frameworks, I contextualized the observed shifting position.

From the perspectives of liberal institutionalism and regime theory, the driving force behind China's shifting investment preferences, especially in the energy sector from fossil fuel-oriented projects towards alternative energy investments can be attributed to the impact of the regime and the motivations of cooperation and absolute gains. This might be true only if China is taken as a major greenhouse gas emitter. However, another aspect is that China is also a rising power that prioritizes economic gains and reputational benefits to project its rise in the international community and to build a responsible power image that cares about environmental concerns, thereby constructing a particular form of identity that is in harmony with its realist considerations (Yang, 2022). The incentive structure consisting of economic and material returns is a key driver and it determines the trajectory of China's policies on climate change mitigation as part of the regime expectations.

After examining how regime-actor interaction may impact the greening of the BRI, facilitate cooperation with the U.S. on global climate change, and shift domestic institutional structures and normative grounds towards a more climate-inclusive approach, I applied a realist perspective to these cases. Specifically, I demonstrated how the overlap or conflict between China's incentive structure and the expectations of the climate change regime can result in different outcomes. While the areas highlighted by the liberal institutionalist paradigm and regime theory indicate an overlap scenario where China is developing a financial incentive structure and increasing its reputational gains, other cases suggest a conflict scenario. For instance, China has avoided funding the Loss and Damage Fund and made a tactical pledge not to open new coal plants. Therefore, the framework based on the overlap or

conflict between two levels, namely the incentive structure and the regime expectations, appears to hold for the cases examined.

6.2 Discussion

China's stance on climate change, particularly its evolving position on non-energy investments, such as the transition from fossil fuels to alternative sources, collaboration with the United States, and the greening of the Belt and Road Initiative, assumes a more profound significance when examining the underlying incentive structure that motivates such behavior. The argument posits that China's shifting position represents a tangible manifestation of a set of interests, consisting of economic gains and reputational advantages. The literature predominantly generated by Chinese scholars exploring this transformative process, combined with its incongruity with the expectations of the climate change regime, provides compelling evidence of the existence of an actor driven to action by structured opportunities that serve as a source of motivation.

China's ability to employ its influence within the G77 bloc as a bargaining chip, the strategic balancing of commitments to coal-fired power plants with alternative investments to compensate for potential financial repercussions, and the decision not to contribute to the loss and damage mechanism all illustrate the deliberate actions of a calculated actor who acts by strategic priorities. Consequently, China adopts an outward-oriented approach, aligning with the overarching narrative of being a leading state, while framing its actions within various normative frameworks, thereby primarily prioritizing a pragmatic, interest-based approach. This position

affords China a noteworthy role in ongoing discussions that question the prevailing dominance of the liberal international order.

Weiss and Wallace (2021) assert that China's interest-centric approach to climate change is also influenced by domestic factors, particularly in the context of the Chinese Communist Party's regime consolidation. This argument aligns aptly with China's shifting narrative, recognizing that the transition towards proactive climate policies cannot be adequately evaluated without accounting for the underlying domestic considerations such as rising air pollution in urban areas. Consequently, the observed behavior is intrinsically intertwined with China's domestic circumstances, giving rise to a two-level game situation that provides a nuanced assessment.

6.3 Implications for the literature and policy-making

This study investigates the intersection of climate change and international relations, drawing on prominent IR theories. The literature has extensively documented the keen interest in climate change within liberal institutionalism and regime theory, owing to the growing institutional structure and cooperation among states. In contrast, realism has traditionally attributed secondary importance to the subject, emphasizing instead the significance of power, relative gains, and self-interested calculations of nation-states in an anarchic international order. Accordingly, incorporating climate change into the realist agenda requires identifying a common denominator that allows for examining the issue through the lens of realism. The core argument of this study centers on the interaction between two key concepts, which I have labeled as incentive structure and regime expectations. By emphasizing the economic and reputational gains that drive state behavior, this framework echoes

realism's interest-centric explanatory framework and provides a basis for reconciling climate change with realist principles.

In terms of practical implications, this framework can be extended beyond China to examine the behavioral patterns of other parties involved in the global climate change regime, providing a nuanced understanding of their climate-related trajectories. For instance, other developing countries in the non-Annex I group are also experiencing promising economic growth and engaging in various multilateral organizations to enhance their economic benefits, while simultaneously contributing to carbon emissions. As such, the incentive structure framework can also be applied to their behavioral patterns, allowing for the identification of strategies that increase their incentives to remain within the climate change regime and demonstrate proactive commitments to address the issue. By proliferating strategies such as green finance and CDMs, it may be possible to encourage a broader group of countries to participate in and support the global climate change regime.

6.4 Limitations and future research agenda

Limitations of the study can be addressed through further research on three key points. Firstly, the current study relied on data that only goes back to 2005, meaning that it does not capture China's shift towards renewable energy and green investment that began with the Belt and Road Initiative (BRI) in 2013. A more comprehensive dataset that extends further back in time could provide a more accurate representation of China's past fossil fuel investments and the significance of its recent shift towards renewable energy.

Secondly, while the current study focuses on investment patterns, discourse analysis could provide a more nuanced understanding of the political changes and transformations related to climate change policies in China. This would allow us to analyze the rhetoric and messaging used by Chinese policymakers to communicate their commitment to climate change, and how this commitment has shifted over time. In particular, analyzing the discursive strategies used to justify the shift towards renewable energy could provide valuable insights into how the Chinese government is navigating its domestic and international climate commitments.

Thirdly, while the study focuses on China's foreign investments, it is equally important to consider domestic investment patterns and the coalitions between business and political actors that shape them. Examining these factors would allow for a better understanding of how policies aimed at promoting renewable energy are shaped within China. By examining the role of domestic coalitions and the policy-making process, we can better understand how the shift toward renewable energy is being implemented in China.

In summary, further research could refine the current study's methodology and content to better capture China's position in the global climate change landscape. Additional datasets could be used to capture more historical data and a more comprehensive picture of China's investment patterns. Discourse analysis could provide insights into the political changes and transformations that have occurred in climate change policies. Finally, examining domestic investment patterns and the coalitions shaping them would provide a better understanding of how policies aimed at promoting renewable energy are being implemented in China.

Beyond these limitations, however, the current study has provided valuable insights into China's recent shift towards renewable energy and the role of foreign investment in that shift. The study's findings highlight the potential for economic and reputational incentives to drive climate change action, even without binding international agreements. As such, the study provides valuable lessons for policymakers and stakeholders seeking to promote climate action in other countries. Moreover, the study contributes to the ongoing debate on the role of great powers in climate change governance. While China's shift towards renewable energy has been praised as a positive development, some critics argue that China's growing economic power and status as the world's largest emitter of greenhouse gases give it a disproportionate influence in global climate negotiations. The study's findings suggest that while China's growing economic power and influence may have contributed to its shift towards renewable energy, the role of reputational incentives should not be overlooked. As such, the study provides a nuanced understanding of the factors driving China's climate policies and their implications for global climate governance.

In conclusion, the current study has provided valuable insights into the role of foreign investment in China's shift towards renewable energy and its implications for global climate governance. While limitations of the study exist, these can be addressed through further research that takes into account additional datasets, discourse analysis, and domestic investment patterns. By refining our understanding of the factors driving China's climate policies, domestic and international climate action can be better promoted.

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