

# **Analytical Study on the Current Situation of Green Finance Development in China and France and Prospects of Green Finance Cooperation Between China and France**

**Songling Chen**

Shenzhen University, Shenzhen, Guangdong, China, 518060

Email: [songling\\_chen\\_szu@ie-ac.org](mailto:songling_chen_szu@ie-ac.org)

Green finance is a form of finance that incorporates environmental protection and sustainable development into the financial decision-making and investment process in financial activities in order to promote ecological environmental protection and sustainable development. China and France share a common concern and a common basis for cooperation in the field of green finance, and the cooperation between China and France in the field of green finance has made some progress. China, as one of the world's largest carbon emitters, has been endeavoring to promote the development of green finance. The Chinese government has introduced a series of policies and measures to encourage financial institutions to increase investment in green projects, promote the development of the green bond market and establish a green financial system. France, as the leader of green finance in Europe, is also actively promoting the development of green finance, attracting more funds to green projects through initiatives such as the French Green Bond Initiative. The purpose of this paper is to analyze the current situation of green finance development in China and France, and to discuss the outlook of green finance cooperation between China and France.

## **I. Status Quo of Green Finance Development in China and France**

### **I.1 Comparison of green financial policies and regulations between China and France**

In China and France, the comparison of green financial policies and regulations is an important aspect to understand the status of green financial development in both countries.

#### **1) *China's green finance related policies***

With the goal of sustainable development, China has developed a set of relatively complete green financial standard system covering green credit, green bonds, green insurance, etc<sup>[1]</sup>.

In 1995, the People's Bank of China (PBC) and the General Administration of Environmental Protection (GEP) successively issued the Circular on the Implementation of Credit Policies and Environmental Protection and the Circular on the Use of Green Credit to Promote Environmental Protection in order to promote the implementation of environmental projects.

In November 2007, the China Banking Regulatory Commission (CBRC) issued the "Guidelines on the Work of Granting Credit for Energy Conservation and Emission Reduction", and Industrial Bank followed suit by formally accepting the "Equator Principles" in 2008, becoming China's first financial institution to implement the development of green finance.

In February 2012, the CBRC issued the Green Credit Guidelines as a programmatic document for building a green credit system to guide banking financial institutions to support the development of the green economy and low-carbon industries.

In July 2017, seven ministries and commissions jointly issued the Overall Programme for Building Green Finance Reform and Innovation Pilot Zones to promote the sustainable development of green ecological financial services. The pilot zones covered by the programme include Huzhou and Quzhou City in Zhejiang Province, Ganjiang New District in Jiangxi Province, Guangzhou City in Guangdong Province, Guian New District in Guizhou Province, and Hami City, Changji Prefecture and Karamay City in Xinjiang Uygur Autonomous Region.

Following the issuance of the Green Industry Guidance Catalogue (2019 Edition) in 2019, the People's Bank of China ("PBOC") issued the Circular of the PBOC on the Revision of the Specialised Statistical System for Green Loans in December of the same year, amending the statistical system accordingly.

In October 2020, China promulgated its first green finance laws and regulations - the Shenzhen Special Economic Zone Green Finance Management Regulations, which is also the world's first normative and comprehensive bill on green finance.

In June 2022, the CBIRC issued the Green Finance Guidelines for the Banking and Insurance Industry, which vigorously promotes green financial services in order to promote sustainable financial development and orderly push forward carbon peaking and carbon neutrality.

From the initial proposal of the concept of green finance, after more than a decade of unremitting efforts, the Chinese government has continuously introduced new policies and guidelines to promote the development of green finance, established a green financial system, put forward the requirements of relevant information disclosure, standard confirmation and technical guidance, etc., creating a favourable environment for the development of green finance, and has already achieved mutual recognition of some of the systems and standards with developed countries.

## 2) *French green finance-related policies*

As a member state of the European Union, France applies the EU's classification act and relevant regulations on green finance. However, France is ahead of the EU in the field of green finance legislation and policies, and it can be said that France is one of the leaders in the field of green finance in the EU. In addition, France regards green finance as an important area for sustainable economic development in the future, hoping that it will complement the domestic structural reform and add new highlights to the French economy. Overall, France is promoting the establishment of a green financial system domestically, while at the same time endeavoring to integrate climate considerations into the overall architecture of the global financial system. France was the first country in the world to incorporate green finance into its legislation. As early as 2001, the French government enacted the New Economic Regulation Act (NRE Act), which initiated mandatory extra-financial reporting and required listed companies to disclose the environmental and social impacts of their activities, and Article 225 of the Grenelle II Act of 2010, which includes mandatory CSR disclosure, requires companies to disclose CSR information in their annual reports. In 2012, France adopted a decree (No. 2012-557) on the obligation of companies to be transparent in social and environmental matters,

which further defines the requirements for companies to report environmental and social information<sup>[2]</sup>. And indeed for the French financial sector, Article 173 of the Green Growth Energy Transition Act is the most influential act. It explicitly requires listed companies, banks and credit providers, as well as institutional investors (asset owners and investment managers) to improve the disclosure and transparency of climate change-related risks, and includes measures closely linked to the Task Force on Climate-Related Financial Disclosure (TCFD), which requires the French authorities to assess the climate-related risks of the banking sector<sup>[3]</sup>. This is what prompted France to become the first major economy in the world to introduce ESG disclosure requirements for financial institutions<sup>[4]</sup>. In 2015, France adopted the Excessive Energy for Green Development (TECV) law, which aims to better balance different sources of energy supply. The Act is the most forward-looking energy legislation currently in place in Europe. In addition to reducing the proportion of nuclear energy, the Act covers a wide range of aspects such as the growth of carbon taxes, the development of renewable energy sources, the reduction of greenhouse gas emissions, and the banning of plastic bags.

At the level of green finance regulation, for financial institutions' commitments, the French regulator has made it clear that it will regularly monitor and assess financial institutions' climate and sustainability commitments and ensure that they are aligned with the strategic direction of the institution; in terms of stress testing, the Prudential Regulation and Disposal Authority (PRDA) has developed stress tests on CO<sub>2</sub> for insurance companies and banks to test the probability of portfolio losses under a range of financial scenarios<sup>[5]</sup>.

In terms of innovative green financial instruments, in 2015, the French Ministry of Ecology and Solidarity for Transition issued the first public label for private investments in the green economy, the French Label for Climate Energy and Ecological Transition (TEEC): the TEEC label ensures the transparency and environmental friendliness of financial products, and represents the participation in financing the green economy investors' requirements<sup>[6]</sup>. In 2016, the French Ministry of Finance proposed the Socially Responsible Investment (SRI) label, which takes into account factors beyond financial risk and return, including those related to environmental, social and governance (ESG) issues<sup>[7][8]</sup>.

As the central bank of France, Banque de France has issued a new responsible investment policy for its own investments in 2021 to reinforce its exclusion policy towards fossil fuels. Accordingly, the Banque de France will make the following initiatives to contribute to the development of green finance in France: the complete exclusion of all companies engaged in coal-related activities, regardless of size, by the end of 2024; an exit to start withdrawing from unconventional hydrocarbons starting in 2021 and in line with European benchmarks in 2024, and; a vote against the development of new fossil fuel projects<sup>[9]</sup>. In addition, in March 2021, the Banque de France created a Climate Change Centre to monitor all its climate change related initiatives and ensure their coordination<sup>[10]</sup>.

## 1.2 Development of green finance markets in China and France

Green financial market is an important platform to support green project financing and investment, we can compare the scale, development speed and investment direction of green bonds, green credit, green funds and other markets in China and France to explore the similarities and differences between the two countries' green financial markets.

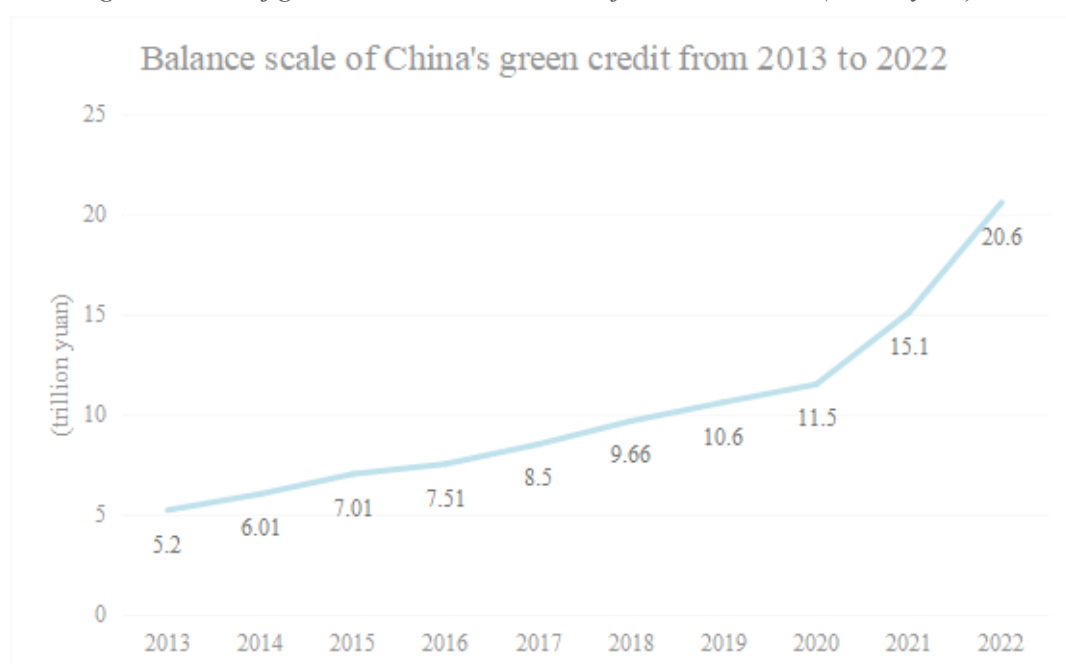
### 1) Various forms of green financial products in China

#### (1) Green credit

Green credit refers to loans invested in green projects to support environmental improvement. 12 July 2007, the General Administration of Environmental Protection (GEP), the People's Bank of China (PBOC) and the China Banking Regulatory Commission (CBRC) jointly issued the "Opinions on the Implementation of Environmental Protection Policies and Regulations on Preventing Credit Risks," in the hope of constructing a new type of financial system and perfecting financial instruments by strengthening investment and financing in ecological protection, environmental construction and the green industry to curb the unrestricted expansion of high-energy-consuming and high-polluting industries. and highly polluting industries from expanding without restriction.

From 2013 to 2017, the total amount of green credit of the 21 Chinese banking institutions showed a steady growth trend, and the proportion of green credit balance in all types of loan balances has been increasing, except for a small fluctuation in the growth rate in 2016, which remained unchanged in the

Figure 1. Scale of green credit balance in China from 2013 to 2022 (trillion yuan)



Data source: CBRC, compiled by Green Finance Research Centre, National Institute of Finance, Tsinghua University

following years (see Figure 1 for details). According to data from the China Green Finance Development Report, the green loan balance of China's financial institutions climbed sharply from 2018 to 2020, and the growth rate of the green credit balance in 2019 was even higher than that of 2018 by nearly 25%, and even when it was affected by the epidemic in 2020, the balance of green credit climbed by 18% compared with that of 2018. By the end of 2022, the green credit balance of large commercial banks in China has exceeded 20.6 trillion yuan. It can be seen that the important direction of green financial development is still dominated by green credit, and China's commercial banks should actively explore and improve the green credit service system in the future, so as to help continuously implement the concept of green development.

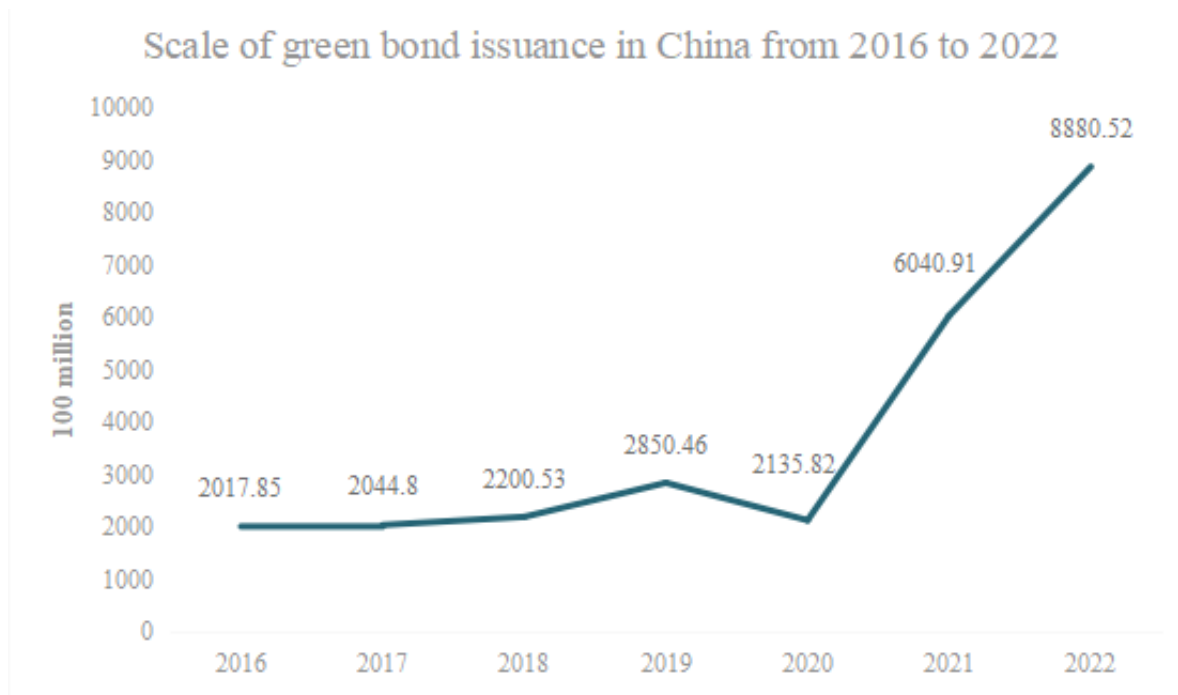
## (2) Green bonds

Green bonds are securities that raise funds through appropriate legal procedures to help those green industries, green projects or green economic activities that meet the criteria. Successful implementation of green bonds requires the release of information including the use of funds raised, project evaluation and selection, management of funds raised and disclosure of information during the life of the bond. There are various types of green bonds including general green bonds such as blue bonds and carbon neutral bonds, carbon revenue green bonds i.e. environmental equity related green bonds, green project revenue bonds, and green asset backed securities<sup>[11]</sup>.

In 2016, Industrial Bank and Pudong Development Bank issued green financial bonds for the first time in China, and the number of green bonds issued by Chinese financial institutions in that year amounted to 51, with an issuance scale of 201.785 billion yuan; in 2017 and 2018, the total amount of domestic green debt amounted to 204.480 billion yuan and 220.053 billion yuan, respectively; the number of green bond issuances and the issuance scale of green bond issuance in 2019 compared with that of 2018, with the issuance scale reaching RMB 285.046 billion. Although the scale of China's green bond issuance in 2020 saw a certain decline due to the impact of the epidemic, overall, the total volume of green bond issuance is still on the rise. The green bond policy system has undergone significant changes since the "peak carbon and carbon neutral" targets were proposed and clarified. Starting from 2021, the government launched a number of preferential policies on green bonds and made more precise specifications on the admission principles and classification standards. 628 green bonds were issued by domestic entities in 2021, with a total scale of RMB 604.091 billion, which is about three times of that of 2020 both in terms of the number of issuance and the scale of issuance. By the end of 2022, the number and scale of domestic green bonds issued in China will reach 683 and 888.052 billion yuan respectively<sup>[12]</sup>.

The scale of green bond issuance in China from 2016 to 2022 is detailed in Figure 2. With the continuous development of China's low-carbon industry and the green transformation and upgrading of traditional industries, the demand for green bonds is also increasing, which promotes the increasing number of green bond issuers, and this development trend will continue.

Figure 2. Scale of green bond issuance in China from 2016 to 2022



Data source: Research Bureau of the People's Bank of China, compiled by Green Finance Research Centre, National Institute of Finance, Tsinghua University

### (3) Green insurance

Green insurance is to integrate green concepts through product design and promote green economic activities with the help of insurance risk management mechanism and derivative functions. With the low-carbon transformation of the economy and society, green insurance products are also constantly innovating and iterating. In addition to environmental pollution liability insurance, forest insurance and catastrophe insurance, which are more familiar to the public, related insurance products such as clean energy, green transport and green building have also gradually entered the market.

In recent years, with the proposal of the "30-60 goal" of carbon peak and carbon neutrality, green finance has also attracted the attention of the insurance industry. As one of the sub-systems of green finance, green insurance has a certain role to play in expanding the variety of green financial products and promoting the development of green finance, and various types of green financial insurance products have provided risk protection for a variety of industries and fields in China. Various types of green financial insurance products also provide risk

protection for various industries in China, such as environmental pollution insurance, green resource insurance, green transport insurance, carbon insurance and so on. According to the statistics of the Insurance Association, from 2018 to 2020, the insurance industry will provide green insurance protection for the whole society with a total of 45.03 trillion yuan, and the amount of compensation payments will reach 53.377 billion yuan, effectively playing the role of risk protection of green insurance. Compared with green credit and green bonds, China's green insurance started relatively late, and is still in the exploration stage, pending the improvement of its institutional system, etc. In 2022, the Green Finance Guidelines for the Banking and Insurance Industry were released, aiming at guiding the development of green finance in the insurance industry, actively promoting economic activities with environmental and social benefits, and orderly promoting the work of carbon peaks and carbon neutrality. As the problems of environmental pollution and energy consumption receive more and more attention, it is imperative to innovate and develop the green insurance market.

## 2) *Overview of green finance development in France*

Relying on the EU emissions trading system and the perfect ESG investment and financing policy system, the green financial market in France has developed rapidly and is more complete. The following section will assess the development of France's green financial market from the development of green bonds, green credit, green funds, green insurance and the establishment of carbon market.

### (1) Green bonds

France has been a pioneer in the green bond market, with a cumulative green bond issuance of US\$124.3 billion as of August 2021, making it the world's third-largest and Europe's first green bond issuer<sup>[13]</sup>. In March 2012, the French local government, the Île-de-France region, took the lead in issuing the first green bond to finance energy, low-energy social housing and biodiversity, among other projects, leading the way for several green bond issues, which won the Climate 2016 Bond Green Bond Pioneer Award.

In terms of green bond issuers, the initial three green bonds were led by French local government entities, laying a solid foundation for green bond issuance<sup>[14]</sup>, and the public sector has dominated the issuance of long-term green bonds, such as the 30-year green bond issued by the SNCF Réseau from 2017, which is the longest-maturity French green bond (excluding Engie's Perpetual Bond). At the same time, the market has been diversifying and growing rapidly since 2012, with an influx of all types of non-government entities, including small and medium-sized enterprises (SMEs) and non-financial institutions. In terms of areas covered by green bonds, French green bonds include energy, construction, transport and many other areas, with those in the energy and construction sectors accounting for 60 per cent of green bond funds used.

In terms of international certification of green bonds, in November 2015, the French Ministry of Energy and Marine Environment decided to become a



partner of The Climate Bonds Initiative (The Climate Bonds Initiative) during the 21st United Nations Climate Change Conference, which is the world's first governmental environmental ministry partner. Under The Climate Bonds Initiative, more than 95 per cent of France's green bond issuances have been externally reviewed.

In terms of sovereign green bonds, in January 2017, Agence France Trésor announced the successful launch of the first French sovereign green bond with a maturity of 22 years and an issue value of €7 billion, making it the largest and longest maturity green bond issued at the time. In March 2021, Agence France Trésor announced the launch of the second French Sovereign Green Bond with a maturity of 23 years and an issuance amount of €7 billion, this green bond (OAT) will finance central government budgetary expenditures and expenditures under the Investing in the Future programme to combat climate change, adapt to climate change, conserve biodiversity, and fight pollution<sup>[15]</sup>.

#### (2) Green credit

On 10 December 2014 France launched a green credit future investment programme to create a total of €680 million in financing, consisting of €340 million in subsidised green loans and €340 million in private co-financing<sup>[16]</sup>. At the heart of the government's new investment programme for the future (PIA) is the ecological and energy transition, with future investments in consuming less raw materials or energy, generating less waste and producing eco-efficient products. The aim of the investment is to improve the competitiveness of industrial fabrics, create public financial instruments to complement the financing provided by the market, and accelerate the industry's shift towards eco-design and eco-production. In 2017, Quadran made the first French green loan<sup>[17]</sup>. In November 2021, Jones Day, Orrick participated in a €150 million French "green" loan bond issue<sup>[18]</sup>.

#### (3) Green funds

With regard to green funds, as the importance of environmental and CSR issues in investment loyalty is gradually recognised, the French government decided to introduce a public certification label to provide a common set of standards for investment funds. The Greenfin certification label was created in 2016 and the label's criteria are based on 3 pillars: green shares and exclusions, ESG criteria and positive impacts. Together, they provide quality and transparency assurances for the fund's management process and its effective contribution to the transition. At the end of 2019, 379 prestigious funds with total assets of €148 billion accounted for nearly 7% of the French collective investment management market; of these, Greenfin certified labelled funds accounted for approximately €12 billion (1%). Statista gives a breakdown of Greenfin's assets in September 2019, with securitisation operations (29.7%) being the most representative, followed by bonds (25.1 per cent) and equities (22.8 percent)<sup>[19]</sup>.

At the end of 2019, 704 sustainable funds were registered in France, and sustainable investments accounted for nearly half of total assets under

management in France. And while Paris, the capital of France, was not the first European financial center to promote sustainable and responsible investing (SRI), it has surpassed London in terms of the number of SRI funds under management over the past decade, reaching €22 billion as of May 2015<sup>[20]</sup>. The Paris financial centre has become a unique hub in terms of socially responsible investing (SRI), systematically integrating governance, ethics and social standards in a traceable way. Indeed, it is currently working on the development of cutting-edge financial instruments and regulatory measures to promote socially equitable ecological transformation, combat climate change and protect biodiversity<sup>[21]</sup>.

(4) Green insurance

The insurance industry plays a key role in supporting the transition to a net-zero economy, as risk managers, insurers and investors. On 11 July 2021, eight global insurance and reinsurance companies, including Allianz AG of Germany, AXA of France, and Generali of Italy, formed the Net-Zero Insurance Alliance (or NZIA). Insurance Alliance (NZIA) to achieve the common goal of carbon neutrality and accelerate the transition to a net-zero emission economy. Members of the Alliance have committed to transforming their respective insurance portfolios to net zero greenhouse gas (GHG) emissions by 2050, consistent with a goal of maximum temperatures of 1.5°C above pre-industrial levels by 2100. "The Net Zero Insurance Alliance is convened by the United Nations Environment Programme Finance Initiative and chaired by Renaud Guidée, Chief Risk Officer of AXA. Also, in the area of risk diversification, the French reinsurance company AXA Re has partnered with the United Nations Environment Programme to provide climate risk coping strategies and insurance solutions for micro and small businesses.

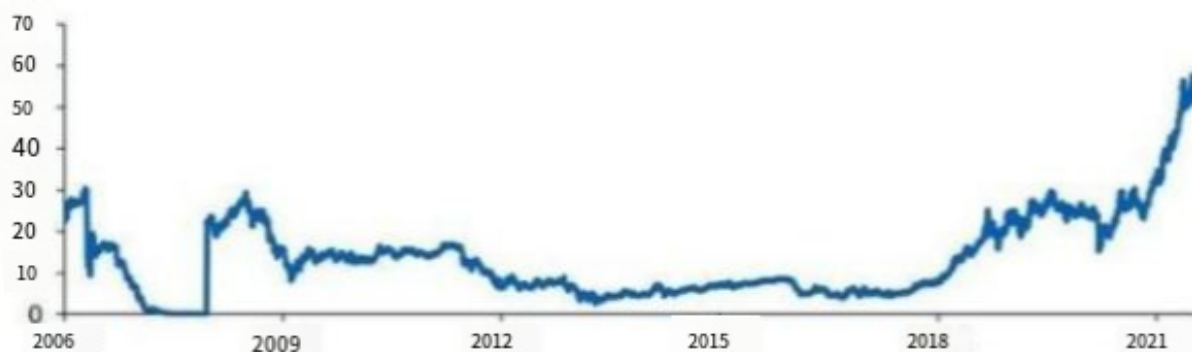
(5) Carbon pricing mechanisms

France is one of the few countries in the world where the carbon pricing mechanism includes both a carbon market and a carbon tax, and its carbon market is part of the European Union Emissions Trading System (EU ETS) - since 1 January 2005, France has joined the European Union's Greenhouse Gas Emissions Trading System (GHG ETS). The EU ETS has become the world's largest regional carbon market, involving the 27 member states of the European Union and Liechtenstein and Norway, a total of 29 countries, a total of nearly 12,000 industrial greenhouse gas emissions entities, including the BlueNext carbon trading market in Paris, including eight trading centers<sup>[22][23]</sup>. Europe has a mandatory carbon market to control total carbon emissions in Europe<sup>[24]</sup>. The self-allowance trading system is a key measure of the EU's climate change policy to reduce GHG emissions in a more economically rational way and is also the world's largest carbon market. Since 2013, bidding auctions have become the default method of allocating GHG allowances. Emission allowances are traded in the most transparent way and in accordance with the "polluter pays" principle, within a fixed limit. As the auctioneer of the European Energy Exchange (EEX) trading platform, the French Treasury has been supervising the settlement of the French GHG allowance auctions

since 2013<sup>[25]</sup>.

In terms of carbon trading pricing, the EU carbon market has seen carbon prices rise since 2021 due to the tightening of allowances in the fourth phase of the reform, reaching an all-time high of €57.77/tonne on 5 July, which is double the price at the beginning of the system in 2005. Figure 3 shows the price trend of the EU carbon market.

Figure 3. Price change trend of EU carbon market



Data source: Analysis by Wind, Bi Macheng

In terms of carbon tax, in September 2009, French President Nicolas Sarkozy announced that France would impose a domestic carbon tax from 1 January 2010, with the tax rate initially set at €17 per tonne of carbon dioxide. At the same time, each litre of petrol and diesel will be attached to the carbon tax of 0.04 euros and 0.045 euros respectively. It is estimated that if this carbon tax policy is implemented, the average French household will be assessed 74 euros of carbon tax per year. However, on 29 December 2009, the French Constitutional Council declared this CO<sub>2</sub> emissions tax bill invalid. In July 2013, the French government again announced that a carbon tax would be introduced in 2014. The tax was set at a rate of €7 per tonne of carbon dioxide in 2014, €14.50 per tonne in 2015, and rose in 2016 to €22 per tonne. As of 2018, the carbon tax is €44.60 per tonne and is set to increase annually, reaching 65.40 per tonne by 2020. But after weeks of protests by the "Gilets Jaunes" (Yellow Vests) against rising petrol prices, French President Macron announced on 4 December 2018 that there would be no planned increase in the carbon tax in 2019.

## 2. Prospects for Green Finance Cooperation Between China and France

### 2.1 China's green finance development outlook for 2024

Green development is the background colour of China's high-quality development.

In recent years, various regions in China have achieved positive results in promoting green development, and the connotation of green development has been further enriched after the "dual-carbon" target was proposed, and relevant exploration practices have also begun to be enriched, and green finance, as an important hand to support green development, has also begun to develop in a wider area after years of policy guidance and market practice. After years of policy guidance and market practice, green finance has also begun to be popularised and applied in a wider area. Based on the green development goals stated in the government work reports of various places in 2024, combined with the current situation and requirements for the development of green finance, the development of green finance in 2024 will also present a new face.

Firstly, the scale and proportion of green finance will grow further, and it needs to be extended and expanded to niche and frontier areas. In recent years, China's green loans have maintained continuous growth, behind which is the rapid development of green real economy. From the deployment of the 2024 work report, green development will still continue to expand, in addition to green energy as a key area of support for green finance, green energy segments or emerging areas, such as hydrogen energy, green methanol, offshore wind power, etc. will be an important direction of development, while energy saving and environmental protection, green technology in the field of new industries also have a strong demand for development, due to the innovative nature of the technology so that the economic benefits of the lack of Stability, green financial investment or more need to "investment banking", superimposed on the government's key industrial support policies, the need to accelerate the development of green direct financing market construction, expanding the green financial investment surface.

Secondly, the digitalisation level of green finance will be accelerated, and financial institutions need to improve the green data evaluation system. 2024 China's government work report specifically proposes to "carry out the ten major actions to reach the peak of carbon emissions in a solid manner. Enhance the statistical accounting and verification capacity of carbon emissions, establish a carbon footprint management system, and expand the coverage of China's carbon market industry", which means that the green data infrastructure will be accelerated to improve, which will also promote the obvious improvement of the quantity and quality of green finance. On the one hand, the expansion of the carbon market will help improve the liquidity of carbon assets, which will also promote the development of carbon finance to a certain extent. On the other hand, the development of green finance cannot be separated from the effective disclosure of green data, the future relies on data to innovate the transformation of financial products such as the market will gradually expand, so that the green financial better support green productivity at the same time, the development of transformation of the financial sector will also usher in new opportunities.

Thirdly, the deepening development of green finance needs to be connected with the reform of other areas of the system, and the substantive reform of some areas needs a breakthrough in the mode. In this local government report, many places have put forward the deployment of system improvement and innovation on environmental rights and interests trading and ecological resources activation, which makes the deepening

development of green finance have new opportunities. For example, in many places mentioned "smooth urban and rural factor flow", although it is a long time to work, but the free flow of factors for the financial intervention provides more possibilities to market-oriented trading of resource indicators, rural resource rights and interests of the reform will make the green finance to support the realisation of the value of ecological products to achieve more significant results.

## 2.2 France's green finance and international conformity

France is one of the world's most active promoters of sustainable development and green finance, with a high degree of international cooperation on green finance and participation in most international green finance platforms, organisations and initiatives. Overall, since the turn of the century, France has signed the Paris Agreement and participated in a number of international green finance platforms and initiatives, including the Equator Principles, the United Nations Environment Programme Finance Initiative (UNEPFI), the Principles for Responsible Investment Initiative (UNPRI), the Network of Central Banks for Green Finance (NGFS), the International Development Finance Club (IDFC), the Working Group on Climate-Related Financial Disclosure (TCFD), the Coalition of Zero Asset Owners (ZAO), the International Solar Alliance (ISA), the International Carbon Action Partnership (ICAP), and the International Energy Agency (IEA). Solar Alliance (ISA), International Carbon Action Partnership (ICAP), and a series of other international initiatives on green finance, reflecting France's belief in actively fighting climate change and developing green finance. At the same time, France, as a party to the Paris Agreement and one of the main promoters of the global climate convention, is committed to being at the forefront of the globalisation of green finance.

France has actively supported a number of international climate and green finance agreements and set an example to other countries with its own actions. In June 2003, Crédit Agricole was one of the first banks to adopt the Equator Principles. In 2015, 196 parties negotiated the Paris Agreement at the United Nations Climate Change Conference held in Paris, France, replacing the Kyoto Protocol, with the goal of limiting the increase in global average temperature rise to within 2°C above the pre-industrial revolution, and to work towards limiting temperature rise to within 1.5°C above the pre-industrial level. In June 2016, France completed its domestic ratification of the Paris Agreement, one of the first industrialised countries to do so. In 2017, the French government, as well as the AMF, the French Financial Markets Authority, supported the Working Group on Climate-Related Financial Disclosure (TCFD) 's related initiative to include more climate issues in financial reporting, rather than reporting solely on ESG issues. France has set the direction for policy and regulatory development in line with the TCFD's recommendations by introducing mandatory climate change-related reporting for institutional investors, achieving innovation in this regulatory area.

France is one of the main contributors to international climate investment and financing within and outside the UNFCCC framework, having participated in the

establishment of the Green Climate Fund (GCF) at the 16th Conference of the Parties (COP16), and has made a significant contribution to climate financing through a series of pledges, deposits and actions to multilateral climate change funds. At the recent United Nations Framework Convention on Climate Change COP26 (UNFCCC COP26), France, along with Germany, the UK, the US, and the EU, pledged to provide South Africa with about US\$8.5 billion over the next 3-5 years to help it close most of its coal power plants by 2050, as well as to develop green energy<sup>[26]</sup>.

### **2.3 Historical origins of sino-french bilateral cooperation on green finance**

The French Development Agency (AFD), as the official development finance institution of France, has provided financial assistance to 115 developing countries, and 50% or more of its financial resources have been invested in official climate-related development projects<sup>[27]</sup>. In terms of co-operation with China, AFD opened a representative office in Beijing in 2004, with the aim of "sustainable development and combating climate change". In 2016, in order to further improve energy efficiency, AFD intends to carry out non-sovereign loan business in China, through the recommendation of Bank of Nanjing's major shareholder, Bank of France, Bank of Nanjing and AFD began to contact and discuss the cooperation of non-sovereign loans. In November 2017, the non-sovereign loan project landed in Nanjing, and in December of the same year, the People's Bank of China, the Bank of France and other financial institutions, including the People's Republic of China, the People's Bank of China, the People's Bank of China and the Bank of France. The People's Bank of China (PBOC) and eight other institutions, including the Banque de France, jointly established the Network of Central Banks and Regulators for Green Finance (NGFS) to strengthen the risk management of the financial system, mobilise capital for green and low-carbon investments, and promote environmentally friendly and sustainable development. Meanwhile, China and France are promoting a harmonised classification system in the field of green finance (in cooperation with the French Ministry of Economy, Finance and Renewal), which will be a key tool to improve the consistency and interoperability of their systems at the international level<sup>[28]</sup>.

In November 2019, the second Sino-French Joint Conference on Green Finance was successfully held in Paris, France, to promote the adoption of low-carbon development models in the "Belt and Road" region. In addition, the People's Bank of China has guided the Green Finance Committee and the City of London to lead a number of organisations to launch the "Belt and Road" Green Investment Principles (GIP), which is a cooperation pathway that has received a positive response from French financial institutions, such as BNP Paribas, Crédit Agricole, BNP Paribas, BNP Paribas, and Société Générale, which will provide a comprehensive overview of the "Belt and Road" region. The two sides will make further co-operation on the green financial standards of the "Belt and Road" countries and regions.

### **2.4 Prospect of Sino-French cooperation**

As mentioned earlier, green finance in France has a comprehensive, integrated and leading development trend. From the perspective of macro top-level design, it has a long-term low-carbon strategy to address climate change, a green finance strategy and a green circular economy roadmap, which points out the direction for the concrete implementation of green finance development in various sectors. At the same time, France focuses on the relationship between financial development and climate change, and a number of financial policy measures are related to climate change, which also reflects France's determination and action to achieve sustainable development goals.

At the level of green finance legislation, France is the first country to elevate green finance to the level of legal obligations, and has gradually established a green finance legal system by adjusting taxes to promote industrial reform and green transformation. In addition, France has established a relatively complete green finance regulatory system through a series of legal and regulatory means, which strengthens the constraints on green finance and reduces the risks of green investment and financing. France implemented mandatory ESG disclosure requirements at an early stage and continues to improve the policy requirements in this regard to fully escort the development of the green financial market. Thanks to the perfect regulation and disclosure system, the French green finance market is very active, and financing instruments such as green bonds, green credits and green funds have been widely applied and developed rapidly in recent years, with a large influx of capital. In terms of carbon market, France is part of the EU carbon market. The mandatory carbon market centered on the EU has laid a good foundation for green financial cooperation among European countries, and its perfect carbon market regulation mechanism and development experience have shown the direction for the international community. In international cooperation, France is committed to making Paris the world's green financial center, and actively participates in international multilateral cooperation, shares its own advanced green financial development results with the international community, and provides green financial assistance funds for developing countries, playing an extremely important leading role in the development of global green finance.

Therefore, for China, the most worthwhile reference is to promote and accelerate the process of legalisation of green finance in China. Specifically, China's current green finance policy mainly relies on guidelines and guidance issued by the government, and requires the legalisation of green finance practices. China already has a relatively perfect green finance top level involving and subdivided green finance related policy documents, which has laid a good foundation for the legalisation of green finance. If the disclosure and regulatory measures are strengthened through legal means: gradually realising the mandatory climate disclosure and ESG disclosure of key green-related industries, and coordinating the regulatory measures from the central regulatory authorities down to the local implementing agencies, it will ensure the orderly operation and prosperous development of all kinds of green financial markets. In addition, in terms of green financial markets and products, besides improving the composition of various market products, strengthening the innovation of green financial products, and promoting their integration with financial technology, China should also speed up the pace of green financial integration with the international community, further expand the international flow of green funds, open up the domestic

green financial market, and actively advocate international green financial multi-variable and bilateral co-operation.

For China and France, the first and second joint meetings on green finance held by China and France, the co-founding of the "Network of Central Banks and Regulators for Green Financial Systems" (NGFS), and the signing of the Memorandum of Understanding on Cooperation in the Field of Innovation in the Financial Sphere between the China Securities Regulatory Commission (CSRC) and the French Financial Markets Authority (AFM) have laid a solid foundation for the synergistic advancement of green finance between China and France. The past cooperation between China and France has laid a solid foundation for the synergistic development of green finance in China and France. In fact, there is still much room for co-operation between China and France at many levels. At the policy level, China can make effective use of the China-France high-level economic and financial dialogue platform to further deepen bilateral policy cooperation. As France is a pioneer in exploring the process of promoting the legalisation of green finance and developing mandatory environmental disclosure standards, China and France can cooperate on the definition and standards of green and sustainable finance, environmental risk assessment, disclosure of environmental and climate information by financial institutions in accordance with the G20 framework, especially the recommendations of the Working Group on Climate-Related Financial Disclosure (WGCRFD), and the role of central banks and regulators in promoting green and sustainable finance, etc. cooperation in this area<sup>[29]</sup>. In addition, China and France should also jointly explore new incentive mechanisms for green finance, including algorithmic mechanisms and green weighting factor mechanisms, and establish support for green business in banking institutions; and promote the convergence of green and sustainable financial standards between China and Europe by drawing on the EU's principles of green financial classification.

At the market and product level, China and France can firstly increase green financial cooperation between China and France, and even China and Europe, through green financial product innovation, and strengthen knowledge sharing and information exchange in environmental stress testing and scenario analysis; secondly, they can further improve the interconnection of the two bond markets, the interbank and the exchange. The two sides signed a Memorandum of Understanding on Cooperation in Innovation in the Financial Sector in 2019, which should further broaden the participation channels for both sides to participate in each other's green financial markets, and expand the scale of potential transactions and counterparties. Again, the construction of green account system and accounting system should be promoted to better integrate finance and green development of both sides at both macro and micro levels<sup>[30]</sup>. Finally, both sides should support each other in the construction of green financial centers. China can strengthen the development of RMB internationalisation and promote the construction of the Paris offshore RMB center, while France can help the development of green finance in China by participating in the financial markets of the Shanghai financial center and issuing cross-border green financial products.

At the level of international cooperation, China's development financial institutions can learn from France's practice, set up a multilateral development bank climate change fund, promote China's green finance along the "Belt and Road", continue to promote the



"Belt and Road" green investment through the GIP and other mechanisms, and promote the development of green finance in various countries. Continue to promote green investment along the "Belt and Road" through the GIP and other mechanisms, and push the official export credit and guarantee agencies of various countries to reduce their guarantees for polluting and high-carbon projects and increase their support for green projects<sup>[31]</sup>. Strengthen cooperation in the "Belt and Road" infrastructure investment greening and other areas, such as promoting Chinese and French financial institutions and enterprises to sign the "Belt and Road" green investment principles and other initiatives. In addition, China and France can also strengthen cooperation in the frontier areas of green finance, such as biodiversity finance, and jointly promote the development of these areas.

## 2.5 Summary of China-France cooperation experience and future development direction

China-France and China-EU can continue to strengthen cooperation in four areas to further promote the development of green finance. First, jointly explore new incentive mechanisms for green finance. This includes studying and learning from the practices of institutions such as France's Banque du Commerce Extérieur and exploring the feasibility of landing these practices in China; secondly, promoting research on the convergence of green financial standards. With the EU's sustainable financial standards nearing approval, the two sides could consider establishing a co-operation mechanism under the IPSF platform to promote the convergence of green and sustainable financial standards between China and Europe. According to experts' estimation, more than 85 per cent of the contents of the proposed European standards and the Chinese standards that have already entered into force are in line with each other, which has already provided a better foundation for the relevant convergence work; thirdly, we will continue to further promote green investment in the Belt and Road along the way through the GIP and other mechanisms. Thirdly, we will continue to promote green investment through the GIP and other mechanisms. We will push the official export credit and guarantee agencies of various countries to reduce guarantees for polluting and high-carbon projects, increase support for green projects, and push the regulatory authorities to set up an environmental impact assessment mechanism for outbound investment; fourthly, we will intensify China-France green financial cooperation through the innovation of green financial products.

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