### Be a Pacesetter of Green Finance

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The construction of ecological civilization is the fundamental and long-term aspiration of the Chinese nation in its sustainable development. Realizing this is of great significance to China's scientific control over the COVID-19 pandemic and steady economic recovery after the pandemic. Since the Eighteenth National Congress of the CPC, General Secretary Xi Jinping defined the construction of ecological civilization as a long-term initiative of vital importance to the people's wellbeing and China's future and an important part of the Chinese dream of realizing great rejuvenation of the Chinese nation, from the perspective of the big picture of the Party's and the nation's development cause. He steered the Chinese people to unswervingly tread the path of "giving priority to ecological progress and green development", and developed ideas on ecological improvement that are forward-looking, scientific and practical, which serve as theoretical grounds and action guidelines for ecological civilization construction of socialism with Chinese characteristics in the new era. As a big state-owned bank, China Construction Bank (hereinafter referred to as "CCB" or "the Bank"), guided by Xi Jinping's thoughts on ecological civilization, has improved its political stance, practiced its social responsibility, adhered to the new development philosophy, vigorously promoted financial supply-side structural reform, placed green finance in a more prominent strategic position, and actively explored new ideas, new modes and new methods of green finance development, thereby empowering the initiative of building a "Beautiful China" and ushering in a new era of socialism with ecological civilization.

# Developing green finance is a responsibility of large-scale financial institutions.

The COVID-19 pandemic that started at the beginning of the year has caused lasting, drastic, devastating impacts and unmeasurable financial loss to the human society and global economy. The pandemic has also proved the huge value of green development and ecological civilization construction. Green development is the fundamental approach of ecological civilization construction, while green finance channels and stimulates social capital flows to green industries such as environment protection, water conservation and energy saving, renewable energy, clean transportation, etc., and thus is the fundamental, innovative institutional arrangement for promoting green development. General Secretary Xi Jinping has stressed repeatedly that green credit, green bond, green stock index and related products, green development fund, green insurance, carbon finance and other financial instruments and policies should be used to serve green development and steer China's green finance development. In recent years, China has continuously stepped up the top-level design of green finance. In 2015, the Party Central Committee and the State Council released the Opinions of the CPC Central Committee and the State Council on Accelerating the Construction of Ecological Civilization and published the Integrated Reform Plan for Promoting Ecological Progress. In 2016, building a green finance system was included into China's 13<sup>th</sup> Five-Year Plan, and seven ministries and commissions jointly issued the Guiding Opinions on Building a Green Finance System. In 2017, the Nineteenth National Congress of the CPC further clarified the initiative of developing green finance and pushing forward green development. Central ministries and commissions including the People's Bank of China, the China Banking and Insurance Regulatory Commission and the National Development and Reform Commission successively promulgated special supporting policies. Green finance has become an important part of state governance. In 2017, the State Council named Zhejiang, Xinjiang, Guizhou, Guangdong and Jiangxin as five pilot areas for reform and innovation of green finance.

Vigorously developing green finance is an important approach to green economic and social transformation, a key measure for achieving high-quality economic development and an embodiment of large state-owned financial institutions' practice of social responsibility. First, we should boldly assume the political responsibility of putting into practice Xi Jinping's thoughts on ecological civilization, which are an important component of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and a systematic collection of Xi Jinping's new concepts, thoughts and strategies regarding the construction of ecological civilization. The development of green finance represents an active practice of Xi Jinping's thoughts on ecological civilization in the financial field, and dialectical unity of ecological civilization construction and material civilization development, environmental protection and economic development. Second, we should boldly take on the social responsibility which is based on the thoughts on people-centric development. A sound ecological environment is the fundamental guarantee for improving people's welfare, and a core indicator for measuring the success of building a moderately prosperous society. Developing green finance and driving green transformation are important measures for offering people with quality public ecological products, and concrete actions of implementing the people-first governing philosophy. **Third**, we should boldly assume the economic responsibly for advancing

the supply-side structural reform. The development of green finance is a big part of the financial supply-side structural reform. Situated at the capital supply side, large-scale financial institutions can adjust credit structure by means of innovative financial institutional arrangements to channel and incentivize social capital to green industries, optimize the industry structure and boost high-quality economic development. Fourth, we should boldly bear the corporate responsibility for fostering new economic growth engines in the post-pandemic era. As the COVID-19 pandemic is sweeping across the world, financial risks are exposed in nations, and shortage of resources and energy is aggravating, forcing economies to transform into green development. Building a green finance system is conducive to fostering and developing emerging green industries and creating new forces and sources for stabilizing economic growth. Fifth, we should boldly undertake the international responsibility for fulfilling the commitment to fighting global climate change. A green homeland is the common dream of all mankind, and the construction of ecological civilization has a stake in the future of mankind. The *Paris Agreement* on climate change officially took effect in 2016, signifying a brand new phase of worldwide green development and cooperation. Vigorously promoting green finance is beneficial to building a new mechanism where capital from all over the world participate in the construction process of ecological civilization and winning China a bigger say in the global environmental governance system.

# Opportunities and Challenges of China's Green Finance Development

Thanks to the guidance of Xi Jinping's thoughts on ecological civilization, green ideas have been deeply rooted in people's mind, green development has made initial headway and is releasing benefits at a greater speed, and green finance has ushered in an important historic time of development opportunities. Large-scale financial institutions should go with the green development trend in the new era, seize historic opportunities, guard against risks and challenges, try to breed new opportunities out of crisis and break new ground amid a changing landscape to effectively promote high-quality development of green finance.

We should seize opportunities of financing demand brought by the accelerating construction of green and environmental infrastructures. In December 2018, the *Paris Agreement on climate change* entered the stage of full implementation. To realize the target of keeping a global average temperature rise well below 2 degrees Celsius above pre-industrial levels and net-zero carbon emissions by 2050, the

world needs new investments of trillions of US dollars each year. China needs to invest about RMB4 trillion per year into new environmental technology R&D, environmental infrastructure construction, upgrading and renovation. Such projects usually have a long investment term and require a large sum of money. Enormous demands for financing and investment capital provide broad market space for green finance development.

We should seize opportunities for structural adjustment brought by the accelerating formation of a modern industrial system. Being green and ecological is one essential characteristic of the modern industrial system. Quality reform, efficiency reform and the reform of creating more robust drivers for economic growth resulting from the accelerating formation of a modern industry system are catalyzing the emergence of new business forms of green industries such as green energy, green transportation, green manufacturing, green building, green consumption and green technology, and have brought new opportunities for asset restructuring to financial institutions. Financial institutions can bring depth to and open up new space for the development of green finance through constructing a diversified green finance service system covering investment and financing, fund, insurance and leasing and through developing more green-led development modes that are driven by innovation. In the meantime, as the transformation and upgrading of traditional industries will further release "environmental benefits", enterprises will be further motivated to bring in new craftsmanship, new equipment, and new materials; energy conservation and environmental protection industries. clean manufacturing, and clean energy industries will grow stronger; efficient agriculture, advanced manufacturing and modern service industries will develop rapidly. As a result, enterprises' demands for financing, intelligence and technology related to green finance will increase continually.

We should grasp opportunities for product innovation brought by the modernization of ecological environment governance capability and governance system. While the Chinese government is pressing forward with the modernization of ecological environment governance capability and governance system and fighting the battle of pollution prevention and control, financial institutions can make full use of their advantages in professionalism and technology to help with such projects as the building of a government operating platform for ecological protection and compensation, provide credit enhancement support for platforms that offer services for conversion of ecological environment technologies, offer professional services such as capital management oversight to environmental projects related to the prevention and control of soil pollution, river and lake water treatment, etc., and empower the governance of ecological environment. At the same time, with the gradual enhancement in mandatory requirements for disclosing environmental information by listed companies, the incentive mechanism for green projects and laws on the prevention and control of environmental pollution, environmental rights will increasingly become real rights, so there will be broader space for such financial services as financing secured by mortgage or pledge of environmental rights such as carbon emission rights, emission rights, water rights and rights to use energy. This will provide huge impetus to the innovation and development of green finance.

Though China's green finance has made substantial progress, compared with leading international practices, there are still deficiencies like unstandardized rules and criteria, unsophisticated information disclosure mechanism, mismatched capability of financial institutions, incentive & restraint mechanism not in place and so on. First, the legal system of green finance should be refined. At present, the legal system of green finance mostly comprises of policy framework, guidelines and guiding opinions, without explicitly defined provisions for rights and obligations of market entities. **Second**, the green finance service system is relatively lagging behind. There exist problems like the lack of high-quality talents, poor service capability of specialized intermediary agencies, the wait-and-see attitude and the herd mentality of some financial institutions together with low participation enthusiasm and lack of proactiveness. **Third**, the green finance market is large but not strong. In spite of the rapid development of green bonds, underlying assets are mainly composed of green credit assets of banks, and the development of such products as green industry fund, green insurance, carbon finance, etc., is too slow to satisfy the differentiated demands of market entities. Fourth, the foundation of green finance development badly needs consolidating. Financial institutions do not share unified understanding of the contents and extension of green finance, and their understanding and practice of internationally leading ESG ideas need to be deepened.

### CCB's Practice and Exploration of Developing Green Finance

State-owned financial enterprises are the "propeller" of economic development and the "ballast stone" of social harmony in China. As a big state-owned bank and a global systemically important bank, CCB has been for years actively undertaking the social responsibility for ecological civilization construction. It boldly shoulders responsibility, takes initiative and actively innovates in the field of green finance, and thus has achieved positive results.

Reinforcing the top-level design of green finance. CCB widely popularized the concept of green finance, profoundly pressed forward with the green development strategy, scientifically designed an institutional framework for green finance development and established a sound brand image in this regard. In 2015, CCB set up the Green Credit Committee in support of the development of green credit business. In 2016, it formulated the Green Credit Development Strategy and the Guiding Opinions on the Development of Green Credit Business. In 2018, it convened a work conference on promotion of green credit, and made adjustments to set up the Green Finance Committee. In 2019, a green finance work forum was held, where the task of fostering new advantages in green finance was put forth for the first time. The same year, it officially signed the Green Investment Principles for the Belt and *Road*, indicating the strategic position of green finance has been greatly raised. The Bank continuously refined its supportive policy for green finance. In terms of resource inputs, it included green credit into special strategic allocations of economic capital and loans, granted favorable support to economic capital utilization of newly extended green loan projects, and effectively expanded the scale of green credit. In terms of appraisal and assessment, the Bank refined the green finance assessment system for its branches, included green credit into the comprehensive operation plan and KPI appraisal, and increased incentives. In terms of customer selection, customers' environmental and social risk (ESR) has been included into the credit business process, and the capability of differentiating and selecting customers has been enhanced. As at the end of 2019, CCB recorded a balance of RMB1.18 trillion green loans, representing a growth of RMB135.5 billion over the beginning of the year; the balance of non-performing green loans was RMB10.3 billion, with a NPL ratio of 0.88%, 1.55 percentage points lower than the average NPL ratio of the Bank. Green credit has become an important means to improving asset quality. In 2019, green credit projects supported by the whole Bank saved 31.97 million tons of standard coals, a year-on-year increase of 1.85 million tons; carbon dioxide emission reduced by RMB72.33 million tons, representing an increase of 3.07 million tons over the previous year. The Bank's green credit business has provided a strong boost to green economic and social transformation.

**Innovating green finance development modes**. By tapping into its advantages in FinTech, CCB used modern information technology to explore new measures, new means and new modes of green finance development. For instance, the Head Office built the "Zhi Hui Ecology" green finance service platform for efficient match of projects in emerging fields such as energy-saving construction and targeted alignment of demands of banks, governments and enterprises. Targeted at "green

travel", Guangdong Branch launched "Green e Xiao Tong", financing for green charging station and guarantee for green financial lease, etc.. To address the difficulties in water conservation in Northwest China with a dry climate, Xinjiang Branch set up the "Cloud Platform for Whole Industrial Chain of Agriculture" in an attempt to explore ecologically friendly development paths. Seizing opportunities brought by the trend of environmental rights becoming real rights, Zhejiang Branch introduced the "Emission Rights Loan" with a view to spurring transformation and upgrading of traditional industries. Guizhou Branch supported the building of multi-energy complementary distributed energy resources centers and the exploration of intelligent allocation of clean energy with financial instruments such as green asset-backed securities.

**Improving green finance services.** Making the most of its "full financial service license", CCB combined banking services, as the core, with various modern financial business forms including securities, fund, trust, leasing and insurance to activate the market investment and financing services and features and enrich a multi-level mix of green financial products. Historic breakthroughs have been made in the issuance of green financial bonds, green credit asset-backed securities and so on. In 2019, CCB issued green bonds of EUR500 million and sustainable development bonds of USD1 billion overseas, both for the purpose of coping with global climate change; underwrote the first panda bond for green construction on the interbank market; issued green credit asset-backed securities of RMB4.4 billion on the market, which was the first of its kind to introduce the "Bond Connect" mechanism; and set up a national green development fund in the capacity of founding shareholder. The subsidiaries of CCB also actively created innovative customized green products. CCB Financial Leasing Co., Ltd. boosted new energy auto leasing through the "chained leasing" mode, with a balance of green leasing assets taking up 26%; CCB Wealth Management Co., Ltd. has allocated RMB13.6 billion for 120 green bonds since 2020; CCB Trust Co., Ltd. actively made equity investments in green projects and has been engaged in green asset-backed securities of RMB1.33 billion.

**Reinforcing the bottom line of green finance risks.** CCB has actively studied ESR stress testing technologies and methods, and maintained systematic, proactive and intelligent control of ESR for making early prediction, planning and arrangement. First, systematic ESR control was deepened. CCB integrated external environmental monitoring information and information on its own asset portfolio, kept a close eye on regions and industries with severe pollution and prominent issues of violation of environmental laws and regulations, and accurately identified "black swans" of environmental issues. Second, proactive ESR control was optimized. The Bank actively applied new results of environmental

information technologies, stepped up the identification of environmentally sensitive regions and industries, took initiative to adjust the credit structure and strictly implemented a veto system on credit projects falling short of environmental requirements. Third, intelligent ESR control was strengthened. The Bank made full use of big data tools to early identify hidden hazards through the risk alert platform, feed risk information to specific targets, and applied a tiered warning and management system. Through making early preparations and ringing alarm bells, CCB holds fast to the risk bottom line.

CCB will further improve its political stance, enhance its political self-consciousness, profoundly practice Xi Jinping's thoughts on ecological civilization, take green finance as an important orientation of business development and speed up the building of new advantages in green finance development. First, medium- and long-term plans on green finance development will be formulated to define development priorities, quantify targets and tasks, and enhance the strategic position of green finance. Second, ecological scenarios of green finance will be built. We will step up innovation efforts in regions with a high concentration of green industrial clusters, a sophisticated market mechanism for environmental rights and arduous tasks of pollution control, and focus on pilot programs in Huzhou, Zhejiang Province; Huadu, Guangdong Province; and Wanzhou, Chongqing. Third, comprehensive services will be provided. In addition to making traditional green credit business bigger and stronger, we will tap into our advantages in comprehensive, diversified and group-oriented operations to enrich the contents and practice of green finance. Fourth, the digital operation capability will be enhanced. We will keep close track of developments of green industrial chain and new green technologies, lock in green customers with growth potential, and drive the development of green sectors with respect to new infrastructure and new urbanization initiatives and major projects.

# A Few Suggestions on Deepening Innovation and Development of Green Finance

**Deeply embedding the concept of ESG investing.** ESG is an investment principle and enterprise assessment criteria where Environmental, Social and Governance factors are included into investment assessment and decision-making process. At present, ESG is widely promoted and applied across the globe, and has become an important component of the green finance system. But the concept is still in its infancy in China. Accelerating the popularization of the idea of ESG investing is of great importance to enhancing the quality and efficiency of listed companies, accelerating China's integration into the world

economy and realizing high-quality economic development. First, ESG assessments can be used to promote healthy development of green finance. The concept of ESG advocates the evaluation and seeking of quality enterprises from a long-term perspective of value investing, design and management of investment portfolios through early warnings and elimination of medium- and long-term risks to acquire higher and safer returns on investment. Deepening the concept of ESG investing can guide financial institutions to enlarge the proportion of green assets, support green industries, green investments and green customers, and promote green economic and social development. Second, the ESG management mode can push forward regulated development of green finance. ESG management covers an all-round, standardized risk control system. In a corporate governance structure, there is a special ESG committee under the board of directors, responsible for materializing the green business philosophy of ESG; setting out green development plans for the financial institution; and scientifically identifying, assessing and controlling environmental and social risks. Third, exchanges on and cooperation in ESG promote the opening up and development of green finance. Since the United Nations introduced the ESG initiatives in the UN Global Compact in 2004, the global systemically important banks have actively responded and participated. With the speeding two-way opening up of financial markets, Chinese large-scale financial institutions should continue to actively participate in organizations for action under the UN framework, take part in the formulation of international green finance standards and green finance infrastructure construction, promote the Green Investment Principles for the Belt and Road and enhance their international influence in the field of green finance.

Accelerating the promulgation of laws and regulations on green finance. We suggest that green finance be included into the rule of law system, and green finance be institutionalized in the legal form to propel quality development of green finance. First, as for the legislation level, it should be a combination of central and local legislations. It is necessary to accelerate the refinement of top-level design, press for legislation by the National People's Congress and issue the Green Finance Act as soon as possible. Meanwhile, local governments should be encouraged to stipulate regulations regarding promotion of green finance based on local conditions. Second, as for the legislation path, legislation on green finance should be in conjunction with basic finance law. The current policies and regulations should be systematically combed through and integrated so as to be upgraded into laws. Meanwhile, articles regarding green credit, green securities and green insurance should be replenished and refined in the Law on Commercial Banks, the Securities Law and the Insurance Law, so as to push forward green, ecological

transformation of the basic finance laws. Third, as to the content of legislation, restrictive norms should be combined with encouraging rules. In terms of restrictive norms, it is imperative to provide for the contents and scope of green finance as well as the rights and obligations of all participants, give impetus to financial institutions to become the direct taker of environmental risk and set up a market-oriented, diversified green finance control mechanism. In terms of encouraging rules, incentive policies with respect to fiscal and tax policy, interest rate and credit extension should be issued to channel capital flows to green industries and enhance the market regulation capability.

Accelerating the refinement of the green finance standard system. At present, China's green finance standard system is unstandardized, incomplete and falls behind business development, so we are badly in need of a standardized, unified standard system for green finance. First, the systematization of the standard system should be improved. We need to enhance the top-level design of the green finance standard system, issue defining rules of green finance, develop green finance product standards for green fund, securities, insurance, environmental rights and so on, and regulate green certification and rating agencies. Second, international cooperation and mutual recognition should be promoted. In 2016, China put green finance on the agenda of G20 Summit for the first time, providing a strategic framework and policy guidance for global green investments. We suggest actively participating in the formulation of international standards and evaluation rules through various important international organizations to promote in-depth integration of Chinese green finance market and the world market. Third, an information sharing platform should be built. Through establishing a green industry information sharing platform for the unified release of lists of project standards and certification catalogues, we can guide market entities to disclose green information and accurately match green industries with green finance business. Fourth, supervision and guidance on financial institutions should be strengthened. It is important to formulate green finance supervision measures in line with the unified standards for green industries and green finance, step up efforts in the certification and statistics of green finance business, establish a quantified assessment system and refine the incentive and restraint mechanism.

Scientifically developing supportive fiscal and tax policies for green finance. We suggest designing a fiscal and tax policy framework and operating mechanism supporting the development of green finance to provide systematic, refined and differential policy and institutional guarantees in terms of fiscal support, preferential tax treatment and financial supervision. First, green financial institutions should be

We incentivized. recommend the government to incentivize innovation-active financial institutions with a big volume and a high growth rate of green finance business in the forms of government funds, risk compensation, fiscal subsidy, tax reduction or exemption and so on, so as to guide financial institutions to push forward rapid development of green finance. Efforts in green finance development by financial institutions should be evaluated and assessed. Good performers should be subjected to refined regulatory policy and differential management treatments in terms of required deposit reserve, supplementary capital and economic capital measurement. More practical and flexible policies regarding profit assessment, provisions, risk mitigation and disposal of non-performing assets should be adopted. Second, the green finance market should be activated. Local governments at various levels should be encouraged to employ such policy means as guarantees to provide credit enhancement, subsidized loan interests, joint initiation of funds and risk loss compensation, set up a risk sharing mechanism for green finance and set out to address the asymmetry of green finance development risk.

Attaching great importance to the building of a talent team and supporting entities for green finance. Green finance involves various disciplines such as economics, finance, environmental protection, chemistry, engineering and law. Thus, it is urgently required to strengthen the professional team and the development of supporting entities. First, the professional team of green finance should be enlarged and strengthened. Financial institutions can set up a department at the headquarters level specializing in green finance and expedite the building of a professional team in order to achieve dedicated management and full coverage of green finance business. Besides, it is also important that financial institutions should deepen cooperation with financial regulators, trade associations, scientific research institutes. energy conservation and environmental protection bodies, third-party think tanks and so on, build a high-end financial professional training and exchange platform featuring an integration of industry, education and research, and develop green finance talents who are conversant with financial capital operation and have international visions. Second, a better environment should be in place for training green finance practitioners. It is advisable to formulate high-level policies for attracting and nurturing high-end green finance talents, and build green finance personnel service and exchange platforms. Institutions of higher learning, scientific research institutes and specialized research agencies should play a main role in training green finance practitioners, and green finance research institutes should be founded for pooling of talents and meeting of minds. Third, the market intermediary system for green finance should be refined. China-foreign cooperation and exchange platforms should be

established to spread ideas about green finance. Green finance intermediaries should be nurtured; institutions specializing in credit rating, third-party certification, asset assessment, information counseling, environmental risk assessment, etc. should be encouraged to offer supporting services for green finance; and NGOs in civil society should be given full play.

History has proven time and again that in face of disasters and pandemics, only reformers advance, innovators get stronger and those that reform and innovate will prevail. General Secretary Xi Jinping pointed out that promoting green development and green lifestyles is a profound revolution of development outlook, and that we need to insist on and implement a new development philosophy, correctly handle the relationship between economic development and ecological environment protection, and protect the ecological environment like the way we protect the eyes and treat the ecological environment like the way we treat life. Guided by Xi Jinping's thoughts on ecological civilization, CCB will boldly take on its social responsibility as a large state-owned bank, accumulate and gather strength, strategize our moves, identify opportunities for change, seek changes and respond to changes. Through seizing new opportunities for developing green finance, we will actively explore innovative new modes of green finance development, vigorously support green economic and social development and make our share of contribution to building a "Beautiful China" where the sky is bluer, mountains are greener, waters are cleaner and the environment is more beautiful.