

air quality. Between 2015 and 2019, China halved the proportion of days registering high PM2.5 pollutants in 337 cities from 17.5 per cent to 8.5 per cent. And the average daily concentration of PM2.5 fell by 35 per cent to 36 micrograms per cubic metre in 2019.

Green Finance: The China approach

Green finance is necessary for the energy transition as it offers a market-oriented financing solution which the world needs to address the substantial gap between the supply and demand of green finance. In fact, the Global Infrastructure Hub estimate that global economies face a \$15tn infrastructure gap for the period 2016 to 2040. Therefore, we must further develop our green finance systems.

Strong private capital participation, though, usually requires reorienting the institutional structure and mechanism of domestic and global financial system. China's approach shows that green finance has played an important role in mobilising private and public capital into green investment opportunities.

China's rapidly evolving green finance system over the past few years was underpinned by coordinated macroeconomic policy, regulatory, institutional and technological developments. This stemmed from a combination of a "top-down" approach in political push/strategy architecture and a "bottom-up" approach in ground-level experimental work and implementation. Among many other this, detailed policies were developed with respect to green bonds, green credits, environmental information disclosure, third-party assessment and appraisals.

In addition to a policy framework, regulatory measures are needed to incentivise financial institutions, investors, and corporations to allocate financial resources to green investments. China's monetary policy incentives have included incorporating green credits to regular macro prudential assessment. For example, in 2018, the PBoC expanded the eligible collateral pool for its Medium-term Lending Facility to include green financial bonds, AA+ or AA rated green corporate credits and high-quality green loans. This helped attract investments into green bond markets and support lending to green projects.

On fiscal incentives, a number of local governments introduced interest subsidies and

provided credit guarantee and risk compensation to investors of green loans and green bonds. In 2017, eight cities in five provinces (Zhejiang, Jiangxi, Guangdong, Guizhou and Xinjiang) set up pilot zones of green finance reform and innovation. Sichuan province offered interest subsidies to local financial institutions which issue green financial bonds, while Jiangsu provinces offered 30 per cent interest subsidies for two years on green corporate bonds. Last year, Shenzhen government offered green credit enhancement scheme which compensates lenders for up to 50 per cent of the notional amount of green loans in the event of default, and 50 per cent interest subsidies to the low carbon emission enterprise borrowers.

Additional incentives being considered include the possible relaxation of risk weighting requirement on green assets for commercial banks. This will provide some relief on the capital charge for green loans and promote green lending.

The next step

It is critical to integrate climate with environmental, social and governance risks in assessing investment opportunities by corporations and investors to promote sustainability. Enhanced disclosure obligation (ESG disclosure or non-financial disclosure) by corporations, borrowers and investors is therefore a key regulatory requirement to support the growth of China's green finance.

The process has already kicked off. After new company law took force in 2006, the Shenzhen and Shanghai stock exchanges published guidelines urging listed companies to disclose corporate social responsibilities. This included environment-related information. In 2008, state-owned enterprises were required to publish their social responsibility reports each year and other guidelines were published. And in 2018, the CSRC established the ESG disclosure framework for listed companies.

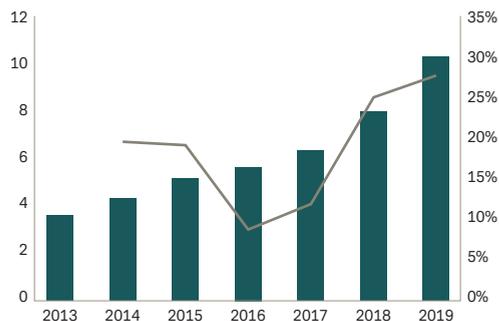
This has helped spur the growth in ESG investors. There are now over 130 green investment funds that collectively manage assets worth Rmb 69bn. That figures has more than doubled since 2013. In addition, 22 local government sponsored green industrial funds have been launched with assets worth over Rmb46bn.

To continue the necessary developments, the

CSRC and other financial regulators must continue working towards mandatory requirement for listed companies and bond issuers to disclose ESG risks. This should apply to both A and H share issuers.

This will recognise that green loans are the most important financing tools for green projects in China. According to CBIRC credit data for twenty-one systemically important commercial banks, the total amount of outstanding green loans as of June 2020 was Rmb11tn, up from Rmb3.7tn in 2013. That is average annual growth of 19 per cent and ensured the share of green loans to total loans was over ten per cent in 2019. Key beneficiaries of these loans have included green transportation, and renewable

Green loans in China are growing quickly

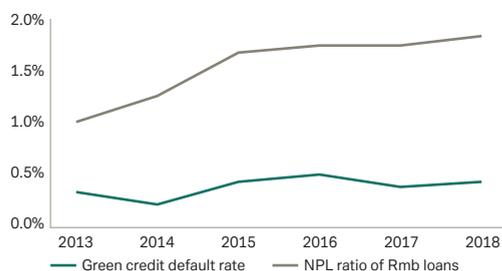


Source: CSRC

and clean energy projects for electricity, gas, and water production and supply.

So far, green loans have also been safer than other forms of lending. Indeed, the default rate of green credits has consistently stayed well below the non-performing loan ratio of aggregate Rmb loans during 2013-2018. In 2018, the default rate was

Green loans have been safer than regular loans



Source: CSRC

just 0.42 per cent, less than a quarter of the 1.83 per cent default rate of overall Rmb loans portfolio held by systemically important commercial banks.

While further policy developments are necessary to promote the green loan market, they should not ignore the growing size of China's onshore and offshore green bond market. While much smaller than the green loan market, green bond issuance has grown from Rmb240bn in 2016 to Rmb386bn in 2019. That made China's green bond market the world's largest by annual gross supply in 2019 and there are Rmb1.2tn outstanding green bonds currently in the market.

As policy evolves it must recognise the importance of non-financial corporations and new products. Rapid recent growth now means they account for 37 per cent of China's green bond market supply. Meanwhile, the issuance of green asset-backed securities exploded by 350 per cent to over Rmb50bn. Furthermore, green stocks have emerged as green enterprises tapped into China's equity market for financing. In 2018, they raised over Rmb22bn through equity IPOs and equity refinancing. Other new products such as green insurance, green trust, green PPP, and green leasing products have started to develop.

How to promote green finance in the post-covid era

The United Nation's 2030 Agenda requires significant public and private investment to realise the Sustainable Development Goals, and goals of the Paris Agreement on climate change. Yet, the financing gap to achieve the SDGs in developing countries is estimated to be up to \$3tn per year. Financing needs to fund the post-covid recovery may increase that gap by at least ten per cent.

To achieve carbon neutrality by 2060, China needs to invest about Rmb100tn in green projects over the next four decades, according to estimates by Tsinghua University in its "China's Long-term Low-carbon Development Strategy" report. That implies Rmb2.5tn (\$370bn) of green finance demand per year and is equivalent to China's 2019 green finance demand, which itself was about ten per cent of China's annual aggregate social financing need.

Surging demand for green finance, and rising appetite for ESG/green investment, means the following aspects deserve greater policy attention in order to develop a more robust green finance system in China.

1. *Strengthen monetary, fiscal and regulatory incentives for green investment.* As monetary and fiscal policies are critical in supporting a green recovery post-covid, there is ample room to design more innovative monetary, fiscal, and regulatory incentives and policy tools to foster green investment. Policymakers may consider these potential policy options:

First, dedicated green liquidity facilities in the medium to long term range (three to five years): Currently, given commercial banks are the largest investors in the green loans market, strengthening monetary incentives to them should be effective in supporting the growth of green credits.

The PBoC now accepts eligible green credits and bonds for its relending, MLF/SLF/PSL facilities. We suggest to consider creating dedicated green medium to long term liquidity facilities for commercial banks to obtain direct liquidity support from the central bank collateralised by eligible green loans and bonds, such facilities also help address the issue of duration mismatch between especially long-term green projects and the relatively short duration of commercial banks liabilities.

Second, relax capital requirement on green loans: Currently, the risk weighting of most green loans is 100 per cent. Lowering the risk weighting will release capital which will allow commercial banks to deploy more resources to green lending.

2. *Develop a comprehensive green finance structure to support China's medium to long term "dual circulation" growth strategy.* China's green finance at present has a simple structure in that the financing has primarily been supplied by large financial institutions. Borrowers are generally large and listed corporations, with green debt instruments (green loans and green bonds) being the main financing tools. However, green finance should incorporate the fact that the Chinese economy is undergoing a structural transition towards a greener and more sustainable economy based on the "dual circulation" growth strategy.

Such transition requires green finance to expand to more sectors and more participants. It also requires product offerings to be more diverse. In other words, a more comprehensive, more flexible green finance

structure is needed to better serve China's green investment demand. The following should be considered.

First, the current lack of financing access by green private business and green small and medium enterprises is particularly concerning. This is especially so considering they are very active in technology innovation, such as green initiatives and digital technology. To address this issue, it is important to incentivise small and medium banks to join large banks in providing green credits. Local governments and insurance companies can explore green credit enhancement schemes for private business and SMEs. It is also important to attract private equity capital such as venture capital and other type of alternative equity investors to make early-stage green investment into these companies. Also, local government should consider setting up green industrial funds which will join private capital in supporting equity investment into private business and SMEs.

Second, China's green finance investor structure is biased towards commercial banks, policy banks and asset management funds. Meanwhile, long-term investors such as domestic insurance companies and pension funds are relatively less active. Better aligning green investment interests with such long-term investors by promoting responsible investment and incorporating ESG investment into performance assessment of insurance companies.

Third, a missing piece in China's green finance market is the carbon emission trading market. It is likely China will launch such a new market before 2025.

3. *Improve secondary market liquidity of green finance products.* China's green finance market is largely for primary financing and most existing green products (loans and bonds) are not tradable in the secondary market. The lack of secondary market liquidity restricts the ability of effective risk pricing and risk management on green investment and limits potential investment inflows to green finance market. A potential solution to grow secondary market liquidity is through the securitisation of green loans and favourable terms of repo eligibilities of green bonds.

4. *Implement mandatory environmental ESG disclosure requirements for the financial services sector.* Currently, the CSRC and other financial regulators are working to implement mandatory disclosure for listed companies and bond issuers by the end of 2020. However, China's financial institutions (investors of green assets) are yet to fulfil their obligation for ESG disclosure. The EU has already moved ahead by enacting the Disclosure Regulation which required sustainability-related disclosures in the financial service sector as at the end of 2019 and is expected to apply the new regulation in April 2021. It is likely China will adopt international practice and apply similar mandatory ESG disclosure requirements in its financial services sector over the next five years.
5. *Integrate China's green finance into the global green finance market.* China collaborated with both advanced and developing countries to develop the global green finance market through multilateral organisations such as G20 and the Network of Central Banks and Supervisors for Greening the Financial System. Also helpful have been bilateral dialogues with the UK, France, and

others. China should continue to pursue multilateralism and global coordination in green finance by both sharing its own experience and learning from the best practices from other countries. This acknowledges that the US and Europe are leading the development of parts of the green finance market. Over the medium term, China's domestic capital market is expected to increasingly open up to foreigners both for financing and investment. As part of this, China is expected to gradually integrate its green finance market with the global market in taxonomy, financial and regulatory incentives, and green products specifications.

These recommendations will help continue the momentum that China's green finance market has shown since 2016. If it does, the market could grow to be worth Rmb100tn by 2060. Over the next few decades, I am hopeful that China will continue to build on its early success and develop a more efficient and more open green finance system. This will mobilise private and public capital to support the structural transition to a greener and more sustainable economy. Most importantly, it will help the country achieve the long-term goal of carbon neutrality by 2060.

The pledge by China, as one of the world's biggest carbon emitters, represents an ambitious bid to meet the climate change mitigation challenge, and will have profound implications for the energy sector and commodity and financial markets over the medium to long term. ➤