ISSUE BRIEF

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Green Finance: Seeing through China's Commitments at COP21

The Paris Agreement – universally acknowledged as the world's first universal climate agreement – was adopted in December at the United Nations climate change conference (COP21). The deal has marked a historical milestone towards a low-carbon and climate-resilient future. Both legally-binding and voluntary actions were committed in a variety of areas, which are identified as imperative to curb global temperature rise well below 2°C, or even more ambitiously to 1.5°C. These include mitigation and adaptation efforts that require further reduction of CO_2 emissions, as well as capacity building to deal with climate impacts. Beginning in 2018, a review mechanism will also be established to track and update each country's progress of climate actions every five years.

The accord will pose certain challenges to developing countries that attempt to balance environment protection with continued economic growth. New technologies, energy sources, and economic structures all demand significant up-front cost. Finance, therefore, holds the key to achieve greener prosperity. This is why developed nations continue to be called upon to mobilize US$ 100 billion per year by 2020 to help developing nations transform.

China – the top emitter – welcomes the deal and pledges to implement it, through for instance Intended Nationally Determined Contributions (INDCs). But how will China's domestic financial system and institutions change to accommodate this? Are such changes included in the 13th Five Year Plan (FYP), due to be released in March 2016? This briefing aims to answer these central questions. But first, definitions.

What is green finance?

The definitions of Green finance

So far there has been no consensus in the international community on a uniform definition of green finance. Broadly speaking, any financial tools directed towards environment-compatible economic systems as well as environmental goods and services can be labelled as green finance. Examined within the context of green growth, three points could help elaborate green finance. First, green finance is not the single matter of financial institutions, but the duty of multiple stakeholders, including the government, who play varied roles in promoting green finance. Second, green finance is not only limited to conventional financial instruments, such as credit, bond, equity and insurance. It also accommodates incentive mechanisms (e.g., tax subsidies) and institutional arrangements (e.g. green banks) that help channel green investments. Third, green finance includes also public funds aimed at directing private capital into green sectors[i].

The supply of green finance in China

Over the last five years – i.e. during China's 12th Five Year Plan period - China's investment to address climate change and other environmental challenges has been on a steady rise. In 2011, the investment amounted to RMB 603 billion (US$97 billion), which increased by 37% in 2012, arriving at RMB 825 billion (US$ 134 billion). In total, the investment is expected to surpass RMB 5 trillion (US$ 817 billion) over the entire period of the 12th FYP[ii]. It is worth noting that a RMB 2 trillion (US$ 320 billion) package was put in place to tackle water pollution, and RMB 1.7 trillion (US$ 258 billion) was planned for combating air pollution.

However, while China has spent substantially to address environmental challenges, its coal industry remains heavily subsidized by the government through consumers and producers. It is estimated that RMB 45-158 billion (US$7-26 billion) worth of subsidies have been provided to the coal industry (using 2013 or nearest available data); almost equivalent to those provided to support renewable energies[iii]. The consequences of this are severe, resulting in even more significant costs of coal-induced greenhouse gas emissions and air pollution, which are estimated to reach RMB 1044-4172 billion (US$ 167-667 billion) and RMB 212-8446 billion (US$ 31-367 billion) respectively in China.

The demand for green finance in China

It has been estimated that China would need a total of approximate RMB 15-30 trillion (US$ 2-5 trillion) in green finance to realize green growth from 2014 to 2020. This would require investing in sustainable energy, infrastructure, environmental remediation, industrial pollution control, energy and water efficiency as well as green products (see Figure 1)[iv]. The number would be much higher if investments in other important sectors such as ecosystem protection and climate adaptation are accounted for.

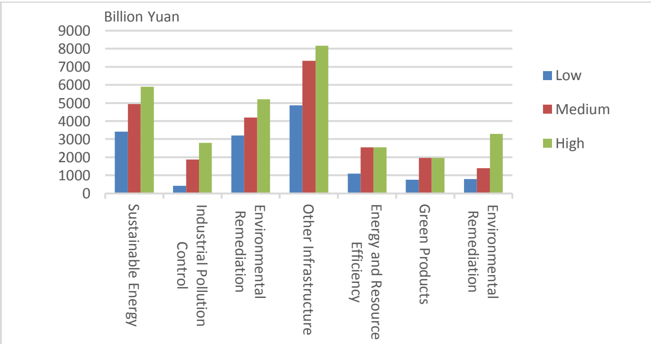

Figure 1. Demand of Green Finance in China (2014-2020).
Source: Green finance reform and green transformation. China Council for International Cooperation on Environment and Development (CCICED).

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Low, medium and high refers to three different scenarios, which are set based on different green growth targets set in 2013 and 2015.

China's green finance portfolio

To fulfil the demand for green finance, a variety of policies and tools are required to channel public and private funds to green investments. Broadly, five vehicles have been identified to construct an effective green finance system in China (see Figure 2)[v].

Currently, *green credit* remains the primary source of green finance. By the end of 2014, China's 21 major banks registered in total about RMB 6 trillion (US$ 1 trillion) in outstanding loans to green-credit-related customers, according to China Banking Regulatory Commission (CBRC)[vi]. China's *green equity market* has also been developed with the disclosure of environmental information of listed companies, launching of green securities indices and green investment funds. In addition, *the insurance market* has started to operate with the introduction of compulsory environmental liability insurance (CELI) in China. The pilot results were, however, not fully satisfactory – with low participation of insurance companies and enterprises.

Another important financing model is *Public-Private-Partnership (PPP)*. In China, PPP is typically deployed to finance large-scale projects, with a Special Purpose Vehicle (SPV) established for the government and private investors to join and manage project funds. Given that the SPV normally contains no more than 30% of the project funding, the rest needs to be obtained from project's assets, expected future income and equities, which act as collateral. An innovative form of PPP in China refers to PPP financing for domestic regional environmental program. This is essentially a PPP deal for a bundle of projects with varied risk profiles to manage a(n) entire (eco)-system (e.g., a river basin, city) in a holistic way.

Last but not least, *the carbon market* has developed with leaps and bounds in China. Since the piloting of carbon trading in 2013 in 7 municipalities, China's carbon market has become the second largest worldwide following the European Union Emissions Trading System (ETS). Deals worth of RMB 850 million (US$ 130 million), 25 million tonnes of CO_2 have been made by nearly 2000 companies[vii].

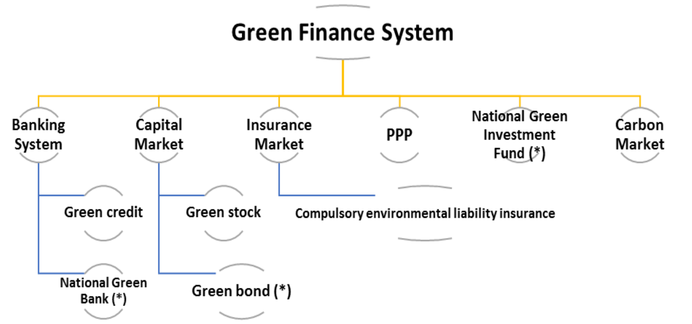

Figure 2. The Green Finance System in China.

Source: Green finance reform and green transformation. China Council for International Cooperation on Environment and Development (CCICED).
The instruments marked with * are not fully in place yet, but recommended to be established.

Next steps: Will China take the lead in green finance? Will it be enough?

To achieve the broader objectives of green growth has lent great urgency to establish a more comprehensive and robust green financial system in China. Reforms have been on-going to set up the national carbon trading market in 2017, and during the next five years – the 13th Five Year Plan period – a Green Development Fund is expected to be created to support clean industrial production and sustainable growth[viii]. Moreover, more resources will be allocated for soil restoration. According to the Ministry of Environmental Protection, RMB 5.7 trillion (US$ 867) will be invested as part of the Action Plan for Preventing and Controlling Soil Pollution[ix].

A lot more is in the pipeline, including the potential for national and local green banks. The primary aim is to achieve the "rippling effects" of the public capital by leveraging private capital into green industries. The green bond market is also expected to grow. The Agricultural Bank of China has already listed its first green bond – worth of US$ 1 billion – on the London Stock Exchange.

China is not alone in this process. There have been advances in many other countries in promoting green finance. For instance, Germany, the US and the UK have developed interest subsidy and guarantee programs for green financing. In emerging economics such as South Africa, the stock exchange has "integrated environmental reporting" as a requirement for all listed companies. All of these can provide useful lessons for China's future development of green finance.

Moreover, if China gets green finance right, it can also help other countries, particularly countries along the "Belt and Road" with providing it, via for instance the Asian Infrastructure Investment Bank (AIIB) and the Silk Road Fund.

But whether or not all of this will result in any genuine impacts depends ultimately on getting the policy settings right and continued focus on green growth despite the market turmoil and economic growth slowdown. This is exactly what UNDP endeavours to encourage in our work. For instance, by analysing the volumes and value for money of expenditure on climate-related activities in China, we aim to advocate for even more green finance considerations in the budgetary process[x]. UNDP stands ready to continue to provide this kind of policy advice so that China can use all the tools available to meet the ambitious commitments it made at COP21, in December 2015.

This Issue Brief forms part of a series to promote understanding of China's green development issues. Thanks to the Economist Team, especially Ms. Yuan Zheng and Ms. Xuan Guan, for their work on this Issue Brief. For more information, please contact the Economist Team at: economist.cn@undp.org.

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