



THE NEXT FRONTIER: CLIMATE CHANGE

As the world's top producer of carbon dioxide (CO2) emissions, China is now taking centre stage for climate change, in tandem with its transition to a green economy. The 'ecological civilisation', already making progress, also has profound implications for green finance and responsible investing in China.

In just three decades, China has emerged as the world's second largest economy. Unsurprisingly, the rise in economic growth – driven by heavy industries – has significantly increased pollution levels. In 2017, China's carbon dioxide emissions were estimated to have reached 9,232 million

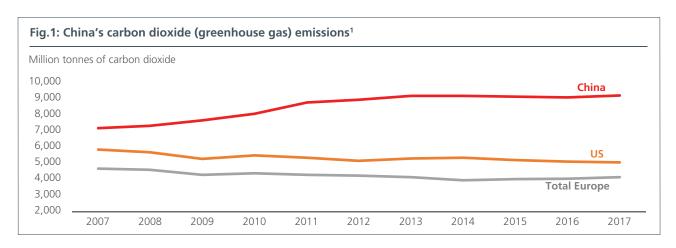


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tonnes, similar to the combined contribution of Europe and the US (see Fig.1).







China produces more than a quarter of the world's carbon emissions; therefore its energy and environmental policies are critical to the COP 21's Paris Agreement² – an international treaty aimed at containing global warming to well below 2°C, and as close to 1.5°C as possible. Under the agreement, participating nations must determine, plan, and regularly report on their Nationally Determined Contributions (NDCs), such as mitigating carbon emissions, increasing the use of renewable energy and growing forest stock.

Now a key player, the Chinese government has responded with the setting of ambitious environmental targets.

China, we believe, is entering a critical period of green development – or 'ecological civilisation' as the Beijing government calls it.

This period of transformation, however, is not going to be entirely smooth-sailing. News reports surrounding the ongoing construction of new coal-fired plants and large-scale funding of such projects overseas have already emerged³.

Nevertheless, there is cause to remain cautiously optimistic.

China, indeed, has met its mid-term 2020 commitment to reduce carbon intensity by 40-45% from 2005 levels, three years ahead of schedule⁴. Furthermore, studies from the Brookings-Tsinghua Center for Public Policy suggest that carbon emissions in China are already peaking – thanks to evolving energy technologies and supportive government policies.

Such initiatives are now expanding into the private corporate sphere.

A CONCERTED GOVERNMENT EFFORT

Facing an imperative to reduce further environmental degradation and fulfil its NDCs, the authorities are taking a strong lead in reshaping China's financial system to encourage green investments in the private sector.

The 13th Five Year Plan (2016-2020), for

example, laid out a wide range of initiatives in every aspect of economic, political, cultural, and social development.

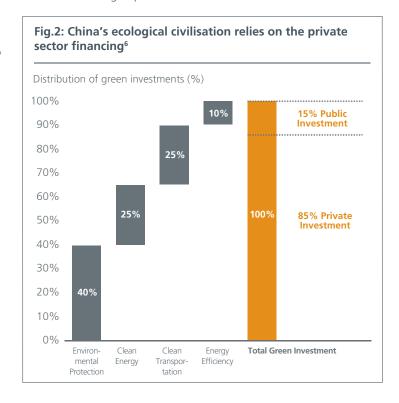
In particular, the move towards an 'ecological civilisation' includes a total of 17 Sustainable Development Goals and 169 specific targets, such as significant reductions in energy use and carbon intensity throughout the country⁵.

While certainly ambitious, these targets, in tandem with the Paris Agreement, are reshaping China's financial system.

THE INVESTMENT OUTLAYS

Achieving these initiatives requires an annual investment of RMB3.3–4.4 trillion (USD474–633 billion) between 2015 and 2020; at least 85% of which needs to come from the private sector (see Fig.2), largely through green financing.

It makes good sense for the private sector to invest in green assets, as they have a much stronger incentive to generate sustainable earnings and avoid building unproductive assets. The central







government, on the other hand, is better placed to steer the direction of green development, primarily by providing clear and comprehensive guidelines.

A key initiative has been the introduction of regulations mandating that, by 2020, all listed companies and bond issuers must regularly disclose their risks associated with environmental, social and governance (ESG). Such a top-down policy push will improve transparency, and provide impetus for the development of China's green bonds market.

A LEAP FORWARD

Even though China's development towards green finance stretches back a decade, progress has been fragmented. The situation, however, saw a leap forward in August 2016 when the People's Bank of China (PBoC) – along with six other government agencies⁷ – issued the Guidelines for Establishing the Green Financial System (GEGFS).

These guidelines mark the initiation of financial structural reforms that officially put green development into China's policy and regulatory framework – an inflection point for China's green financial system.

Not only providing an official definition of green finance, the comprehensive guidelines also include details of incentives, disclosure requirements, and development plans for green financial products (bonds, bank loans, insurance), as well as risk mitigation.

Being the first country in the world with such a clear and extensive policy to support a green financial system, China's green bonds, which are specifically earmarked for climate and environmental projects⁸, are leading the way.

As a reminder, a green bond status is usually qualified by a third-party verifier who certifies that the bond will fund projects that include benefits to the environment. In China, for example, green bond verifiers are under the supervision of the Green Bonds Standard Committee, which set out guidelines based on the international Climate Bonds Standards & Certification Scheme⁹.

THE IMPLICATIONS

Companies issuing green bonds – usually along with tax incentives – can also earn market reputation of ESG/responsible investing while making sustainable earnings.

Building on the growing appetite for green financing, China has already emerged as the world leader – not only as the first country to publish guidelines on the issuance of green bonds, but also in the size of issuance.

In 2017, China issued 118 green bonds (113 onshore, 5 offshore) and raised USD37.1 billion (RMB248.6billion) in issuance, up 4.5% year-on-year; the issuance accounted for more than a third of the world's green bonds¹⁰. And as of November 2018, China exceeded the total issuance of any other country (see Fig.3).

While the current expansion is already impressive, it is still far short of the USD474 billion of green investments required annually. As long as green development continues apace, China's green bonds market should emerge as a sustainable asset class around the world.

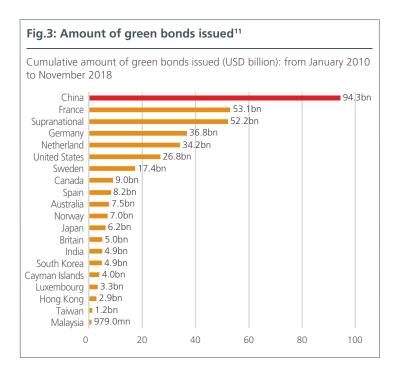






Fig.4: The three-phase environmental disclosure mandate for China-listed companies¹²

Year	Descriptions
2017	Mandatory disclosure for 'key polluter' companies, voluntary for other listed companies
2018	All listed companies are required to disclose on a 'comply or explain' basis
2020	All listed companies and bond issuers will be required to disclose.

THE ROADBLOCKS

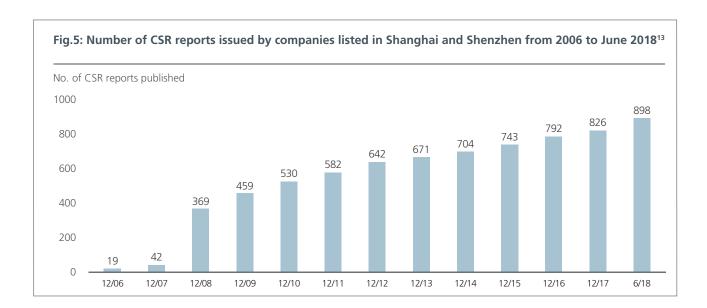
Beneath the growth, however, lay a host of roadblocks, notably the lack of consistent and comparable reporting of ESG issues by Chinese companies, together with others as follows:

- Lack of a formal regulatory mechanism that requires investors to take account of ESG factors in their investment processes.
- Lack of guidance and knowledge of investment cases for ESG integration to support investors.
- Lack of unified definitions aligned with international practices for green and sustainable investment products, etc.

Nonetheless, the good news is that the new disclosure mandate (brought out in the 2016 GEGFS guidelines) is the key to tackling the aforementioned barriers. Figure 4 shows that according to the well-telegraphed policy, the Shanghai and Shenzhen exchanges are requiring the listed companies to disclose ESG risks in three phases.

Unlisted companies, if raising capital from the bond markets in China, are also required to disclose their ESG risks regularly by 2020.

The new disclosure mandate, as we expect, should provide investors with a more holistic view for better investment decision making. This is particularly helpful for international institutions that are required to integrate ESG factors into their investment decisions and analysis. This, in turn, should be reflected in the corporate social responsibility reporting.







CORPORATE SOCIAL RESPONSIBILITY

In 2006, China's listed-companies issued only 19 corporate social responsibility (CSR) reports; and in 2018, the number had jumped to 898 (Fig.5). As the initiative continues, it will not be surprising to see an increasing number of companies targeting compliance with ESG disclosure. In fact, companies that are key polluters have started to disclose pollution and emission figures.

Riding on this rising trend, the overall sustainability and corporate governance of companies in China, as we expect, will continue to improve down the road. In turn, this should provide more transparent opportunities for international investors, though many Chinese institutional investors have yet to follow suit and consider ESG issues in their investment process.

INVESTMENT MANAGERS IN CHINA AND ESG

China's asset managers are not explicitly required to integrate ESG factors into their investment analysis and decisions¹⁴. Nonetheless, there is a strong case for doing so to articulate the Chinese government's long-term goal of ecological civilisation.

Should they choose, China's state pension funds seem well positioned to influence investors; hence, these institutional investors would be a key enabler for green and sustainable capital through the broader financial markets.

Recently, China's regulators have taken a further step. In November 2018, the Asset Management Association of China (AMAC) and the China Securities Regulatory Commission (CSRC) jointly issued a set of voluntary guidelines for green investments.

Although not a mandatory requirement, these guidelines are the first of their kind for the Chinese asset management industry. They suggest that asset managers should be required to submit annual self-assessments of their green investment

products to AMAC, including an evaluation of impact¹⁵.

Pooling these resources together, China's national priority for sustainable development can last, both at home and as a global leader, in our opinion. Considering this, the outlook for green finance and responsible investing should remain positive.

International asset managers who possess on-the-ground expertise and ESG investing experience will have a head start when it comes to tapping into this booming market, riding on China's ecological civilisation.

Sources: 1BP Statistics Review of World Energy 2018, as at June 2018. Notes: The carbon emissions reflect only those through consumption of oil, gas and coal for combustion related activities, and are based on 'Default CO2 Emissions Factors for Combustion' listed by the IPCC in its Guidelines for National Greenhouse Gas Inventories (2006). This does not allow for any carbon that is sequestered, for other sources of carbon emissions, or for emissions of other greenhouse gases. Our data is therefore not comparable to official national emissions data. ²The 2015 Conference of the Parties, aka COP21. At the conference, China committed to lower its carbon intensity by 60-65% and increase forest stock by 2.5 billion m3 by 2030 (as compared to 2005); peak the carbon dioxide emissions and increase non-fossil share to 20% by 2030. 3CNBC: https://www.cnbc.com/2018/04/06/china-is-massively-betting-on-coal-outside-its-shores--even-as-investment-falls-globally.html. https://unfccc.int/news/china-meets-2020-carbon-target-three-years-ahead-of-schedule. 5 Ministry of Foreign Affairs: China's National Plan on Implementation of the 2030 Agenda for Sustainable Development, as at September 2016. Eastspring Investments, as at December 2018, citing sources from: The International Institute of Green Finance's Central University of Finance and Economics and United Nation Environment: Establishing China's Green Financial System: Progress report, as at August 2017, and Green Finance Task Force: Report of the Green Finance Task Force, as at April 2015. Ministry of Finance, National Development and Reform Commission, Ministry of Environmental Protection, China Banking Regulatory Commission, China Securities Regulatory Commission, and China Insurance Regulatory Commission. 8Note: A green bond is a bond specifically earmarked to be used for climate and environmental projects. These bonds are typically asset-linked and backed by the issuer's balance sheet. More specifically, green bonds finance projects aimed at energy efficiency, pollution prevention, sustainable agriculture, fishery and forestry, the protection of aquatic and terrestrial ecosystems, clean transportation, sustainable water management and the cultivation of environmentally friendly technologies (Investopedia). ⁹The Climate Bonds Initiative: Chinese Regulators Introduce Supervisory Scheme for Green Bond Verifiers, as at January 2018. ¹⁰The Climate Bonds Initiative, China Central Depository & Clearing, HSBC, British Embassy Beijing: China Green Bond Market 2017. 11Bloomberg: Green Bond Issuance (amount issued), from January 2010 to November 2018, data extracted on 30 November 2018. 12 Climate Disclosure Standards Boards and CDP (Carbon Disclosure Project). 13CEIBS Research Centre for Wealth Management and the Accounting and Financial Big Data Research Centre of the Shanghai University of Finance and Economics: 2017 Research on the Report of Corporate Social Responsibility of A-share Listed Companies (A股上市公司企业社会责任报告研究2017), as at November 2017, and CEIBS Releases CSR Index for Chinese Listed Companies, as at November 2018. SSE: Shanghai Stock Exchange; SEZE: Shenzhen Stock Exchange. ¹⁴Investor Duties and ESG Integration in China | March 2018, citing China State Council (2015). ¹⁵Asset Management Association of China, 绿色投资指引 (试行), as at November 2018. http://www.amac.org.cn/xhdt/zxdt/393617.shtml.

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