

ESG Spotlight

China leaps ahead at G20: A carbon market on the horizon 6 September 2016

Themes:

Cap and trade, carbon markets, climate change

Sectors:

Aviation, chemicals, construction materials, diversified metals, paper & forestry, precious metals, steel and utilities

Country:

China

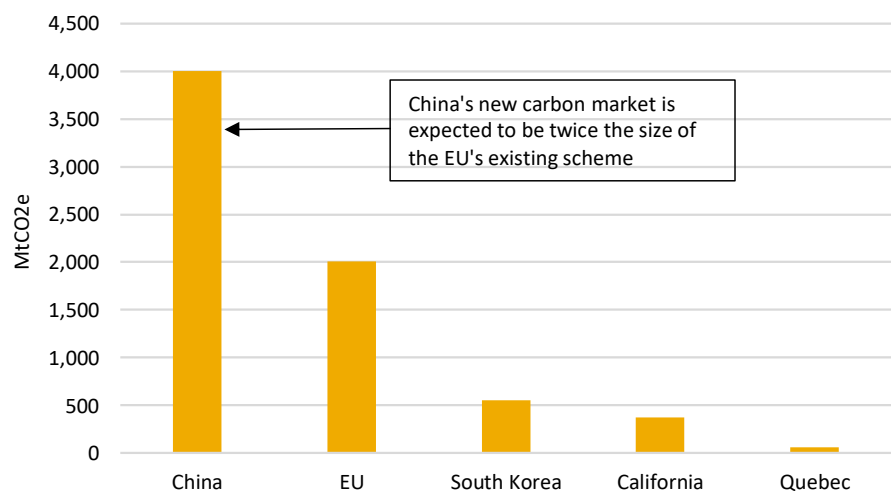
Key Insights

- China's recent ratification of the Paris Agreement lays the foundation for the development of the **world's largest cap-and-trade scheme**, which is expected to cover approximately 10,000 companies across eight industries.
- We expect China's ratification to put increased pressure on Chinese firms to improve their emissions reporting practices. Only **21% of the Chinese companies** in our coverage universe currently disclose GHG emissions data.
- We find **significant differentials in "cap-and-trade preparedness"** among companies slated to be covered by China's national carbon market.

Moving towards cap and trade

China and the US, which together account for over one third of global greenhouse gas (GHG) emissions, announced their ratification of the Paris Agreement ahead of the G20 summit that concluded yesterday. This announcement paves the way for the launch of China's first national cap-and-trade scheme, which is expected to start in 2017 and cover roughly 10,000 companies in eight industries. As illustrated in the chart below, the market will capture upwards of 4 billion tonnes of GHGs annually, making it the largest carbon market in the world. In this research note, we analyze the key features of China's emissions trading scheme and identify companies that may be best positioned to comply with future GHG regulation. We also call attention to the difficulties posed by the lack of emissions data reported by Chinese firms.

Comparing emissions trading schemes



Source: Sustainalytics¹

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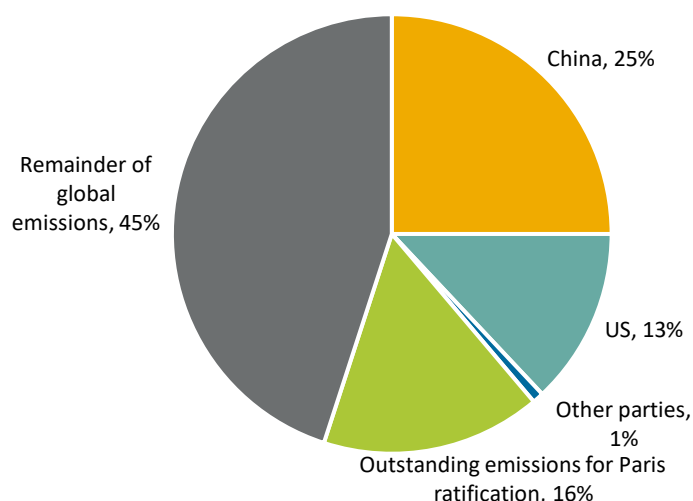
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China and the US are revving up to reduce GHG emissions

A new carbon market on the horizon

By ratifying the United Nations Framework Convention on Climate Change (UNFCCC) Paris Agreement,² China and the US have expressed their intent to coordinate their national climate change policies with international efforts to reduce global anthropogenic GHG emissions. To date, 26 of the 197 Paris Agreement Parties, accounting for 39% of global GHG emissions, have ratified the deal. The agreement will only have legal force after at least 55 UNFCCC Parties, representing at least 55% of global emissions, have ratified the treaty. With China and the US responsible for about 25% and 13% of global emissions, respectively,³ their ratification signifies a major leap towards the Paris Agreement's entry into force.

Global GHG emissions by Paris Agreement Parties



Source: UNFCCC

The basics of cap and trade

A cap-and-trade market is one of several GHG pricing systems aimed at reducing emissions

Cap and trade is one of several policy measures that governments can use to incentivize GHG reductions. In a cap-and-trade market, a national, supranational or subnational regulator sets an emissions cap, which may apply to carbon dioxide (CO₂) and a set of comparable CO₂ equivalent (CO₂e) GHGs. Regulators typically scale back over time the total number of emission allowances (i.e., permits to emit one tonne of CO₂e), which companies in covered sectors can buy and sell in a competitive marketplace. In theory, as regulators tighten emissions caps, the cost of a carbon allowance should increase, incentivizing companies to find innovative ways of lowering their emissions. Today, over 60 jurisdictions, accounting for 40% of global GDP, have introduced a cap-and-trade system.⁴

China's national carbon market is poised to be the largest in the world

In a notable divergence from US climate policy, China is planning to rely on a national cap-and-trade scheme to meet its GHG reduction targets under the Paris Agreement. The scheme will unify nascent pilot carbon markets currently operating in five Chinese cities and two provinces.⁵ The programme is expected to capture approximately 4 billion of China's 13 billion tonnes of CO₂e emissions each year by covering about 10,000 companies in eight industries, including Aviation, Chemicals, Construction Materials, Diversified Metals, Paper & Forestry, Precious Metals, Steel and Utilities.⁶ With initial carbon allowances expected to trade for USD 6,⁷ the Chinese market could be worth upwards of USD 24bn in its first year. As a point of comparison, the EU Emissions Trading Scheme (EU ETS), which is currently the world's largest carbon market, accounts for about 2 billion tonnes of CO₂e per year.⁸

Disclosure requirements in a new regime of transparency

The Paris Agreement may usher in new standards of transparency

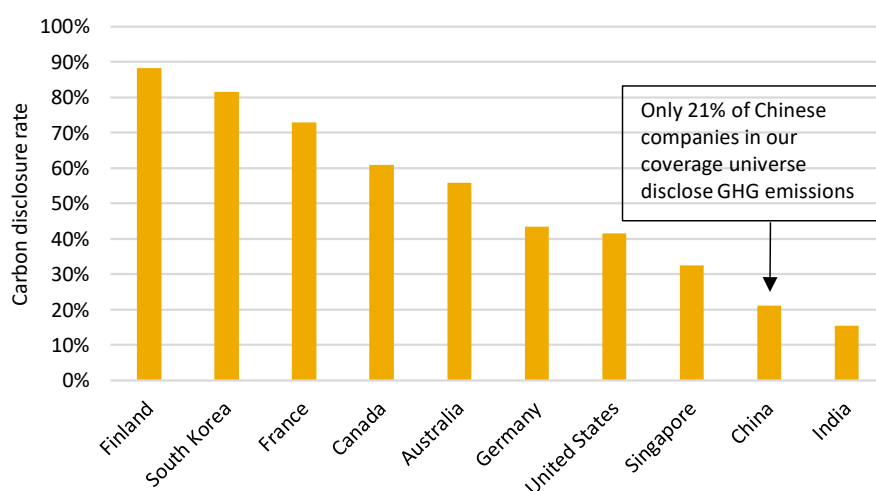
As we explained in our *10 for 2016* report earlier this year,⁹ while joining the Paris Agreement is a voluntary commitment, each Party is legally obliged to provide regular updates regarding national GHG inventories and other "information necessary for clarity, transparency and understanding" in accordance with the UNFCCC protocol.¹⁰ The extent to which this obligation will lead to improvements in corporate reporting practices is still unclear, but our expectation is that China's commitment will put pressure on Chinese firms to improve their "emissions transparency".

Poor public disclosure represents a challenge for investors

As shown in the chart below, of the 71 Chinese companies in our core coverage universe, only 15 (21%) currently disclose GHG emissions data. While companies covered by China's existing carbon trading pilot projects are already obliged to measure and report carbon data, this data is typically kept private.¹¹ As China fulfills the Paris Agreement's transparency provisions, we anticipate a possible trickle down effect on the emissions reporting practices of listed Chinese companies. Any such move would benefit investors seeking to gauge their exposure to China's cap-and-trade system.

Chinese companies have a low disclosure rate on carbon emissions

Carbon disclosure in selected markets



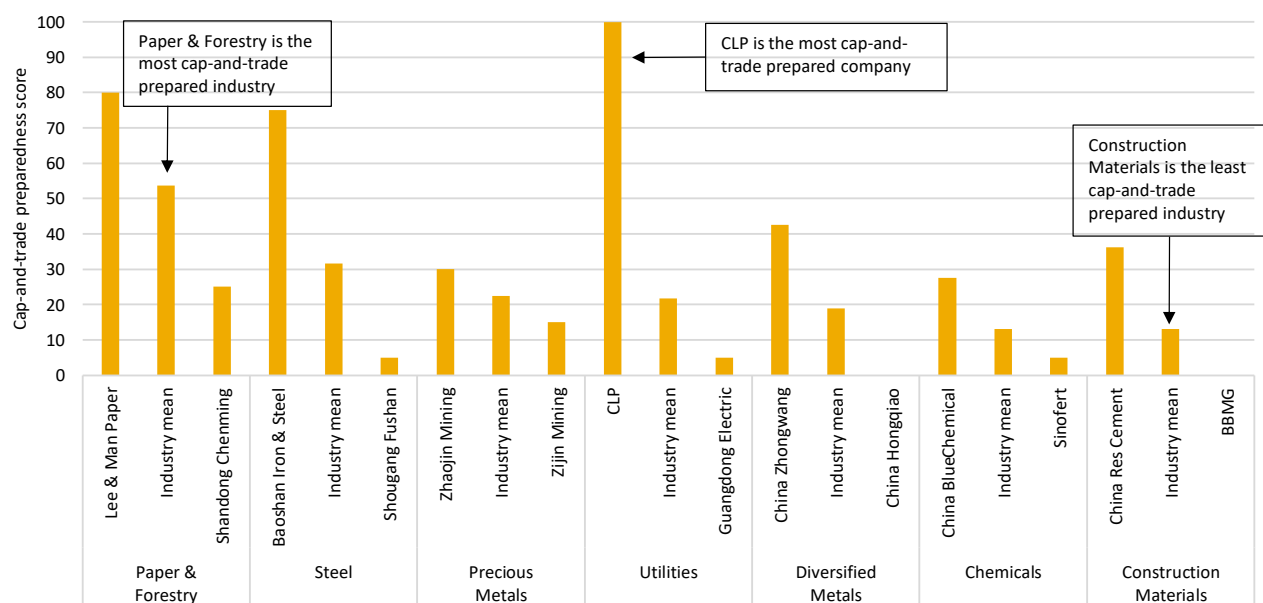
Source: Sustainalytics

A composite of three Sustainalytics indicators offers insights into the cap-and-trade preparedness of Chinese companies and industries

Preparing for the national Chinese carbon market

To assess the extent to which Chinese companies and industries may be exposed to compliance risks associated with China's cap-and-trade scheme, we designed a composite metric using three Sustainalytics indicators that broadly speak to an organization's preparedness for GHG regulation. The indicators, including GHG Reduction Programmes, Environmental Management Systems and Environmental Policies, help us gauge the sophistication of an organization's environmental strategy and the scope of management's existing commitment to GHG reduction. We examined a sample of 77 publicly traded Chinese companies in our database that map onto seven of the eight industries expected to be covered by the emerging national market.¹² We included companies from both mainland China and Hong Kong in our analysis. While it remains unclear if Hong Kong will be included in China's emissions trading framework, Beijing and Hong Kong have recently signalled cooperation in developing emission inventories.¹³

Analyzing cap-and-trade readiness in seven covered industries



Source: Sustainalytics

While mean industry scores range from 54 to 13 points, individual company scores range from 100 to 0 points

While the results of this preliminary analysis are limited due to the problem of accessing emissions data from the companies noted above, as well as uncertainties about how China will implement, manage and enforce carbon market policies, our findings offer a first-order estimate of how prepared different companies and industries will be when the new Chinese carbon regime comes into full swing. On a scale from 0 to 100, the mean average industry scores range from a high of 54 points (Paper & Forestry) to a low of 13 points (Construction Materials). Within industries, we found significant differences in high and low scores between leaders and laggards. The Utilities industry has the largest point gap between leaders and laggards (a 100 point gap), while Precious Metals has the lowest (a 15 point gap).

Our analysis reveals wide performance differentials within and across industries

The leading companies scoring over 60 in our analysis of cap-and-trade preparedness are CLP Holdings (100), Lee & Man Paper Manufacturing (80), and Baoshan Iron & Steel (75). Lagging behind the curve, companies that scored 5 or below include Shougang Fushan Resources Group (5), Guangdong Electric Power Development (5), Sinofer Holdings (5), China Hongqiao Group (0) and BBMG Corp (0). In many cases, these companies scored poorly on our composite metric due to the absence of disclosure on environmental programmes and policies, as opposed to weak or poorly enforced programmes and policies.

China's carbon market – setting expectations

Offering early insights to investors

China's ratification of the Paris Agreement sets the stage for the launch of a USD 24bn carbon market, covering 10,000 companies across eight industries. Our analysis reveals significant differentials in the preparedness of both companies and industries for this market. As emissions trading has received significant criticism in recent years, the turn to cap and trade by the world's largest GHG emitter may signal the re-emergence of emissions trading as a viable climate policy tool. Much will depend on whether China can avoid the problems that have hampered other cap-and-trade schemes, such as the oversupply of allowances in the EU ETS.

A leap in transparency

For investors, we expect the transparency provisions contained in the Paris Agreement to put pressure on Chinese companies to improve their emission reporting practices and broaden the extent of their public disclosures. Our findings reinforce the importance of taking climate change policy into account in investment decision-making and engagement strategies. The entry into force of the Paris Agreement, a proposition that was brought much closer to reality with the recent ratification of China and the US, is likely to further boost the financial importance of assessing company performance against emission reduction initiatives.

Endnotes

- ¹ The estimate of Chinese market coverage is based on a report by Szabo, Mike, Garside, Ben, and Reklev, Stian (19.05.2016), "Analysts Tip China's Carbon Market Prices to Start near \$6, Hit \$10 in 2021," *Carbon Pulse*, last accessed (29.09.2016) at: <http://carbon-pulse.com/20189/>. Data for other jurisdictions are from the International Carbon Action Partnership (2016), "ETS Fact Sheets," last accessed (02.09.2016).
- ² UNFCCC (12.12.2015), "The Paris Agreement" (English), 21st Conference of the Parties of the United Nations Framework Convention on Climate Change, last accessed (26.08.2012) at: https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_english_.pdf.
- ³ UNFCCC Paris Agreement Online Ratification Tracker, last accessed (05.09.2016) at: http://unfccc.int/paris_agreement/items/9485.php
- ⁴ International Carbon Action Partnership (ICAP) (2016), "Emissions Trading Worldwide: Status Report," last accessed (31.08.2016) at: https://icapcarbonaction.com/images/StatusReport2016/ICAP_Status_Report_2016_Online.pdf.
- ⁵ Swartz, Jeff (2016), "China's National Emissions Trading System," last accessed (31.08.2016) at: http://www.ictsd.org/sites/default/files/research/Chinas_National_ETS_Implications_for_Carbon_Markets_and_Trade_ICTSD_March2016_Jeff_Swartz.pdf. Sun, Dong, Jingqi Sun, Xingping Zhang, Qingyou Yan, Qianru Wei, and Yun Zhou, (November 2016), "Carbon Markets in China: Development and Challenges." *Emerging Markets Finance & Trade* 52, no. 6: 1361–71. doi:10.1080/1540496X.2016.1152811.
- ⁶ Bloomberg News (22.01.2016), "China Plans to Include Eight Industries in Carbon Trading Market," last accessed (25.08.2016) at: <http://www.bloomberg.com/news/articles/2016-01-22/china-plans-to-include-eight-industries-in-carbon-trading-market>
- ⁷ Jian Wei Lim, Simon Chen, Sisi Tang, Qianqian Cao. "CN ETS Analyst Research Report: Carbon Price Outlook for Chinese National ETS." ICIS Tschach Solutions, November 6, 2015.
- ⁸ Kossoy, Alexandre, Grzegorz Peszko, Klaus Oppermann, Nicolai Prytz, Noemie Klein, Kornelis Blok, Long Lam, Lindee Wong, and Bram Borkent (2015), "State and Trends of Carbon Pricing 2015," The World Bank, last accessed (29.08.2016) at: <https://ideas.repec.org/p/wbk/wboper/22630.html>.
- ⁹ Morrow, Doug, Olivar, Madere, and Garz, Hendrik (2016), "Sustainalytics Report, 10 for 2016 The Paris Agreement: Triumph of the Optimists," last accessed (28.08.2016) at: <http://marketing.sustainalytics.com/acton/media/5105/10-for-2016-paris-agreement-triumph-of-optimists>.
- ¹⁰ UNFCCC (12.12.2015), op.cit.
- ¹¹ Swartz, Jeff (2016), op. cit.
- ¹² Due to a lack of publicly available information about Chinese aviation companies, we omitted that sector.
- ¹³ Reklev, Stian (24.02.2016), "Hong Kong 'welcome' to Join China's National Carbon Market -Xie," *Carbon Pulse*, last accessed (05.09.2016) at: <http://carbon-pulse.com/16084/>.