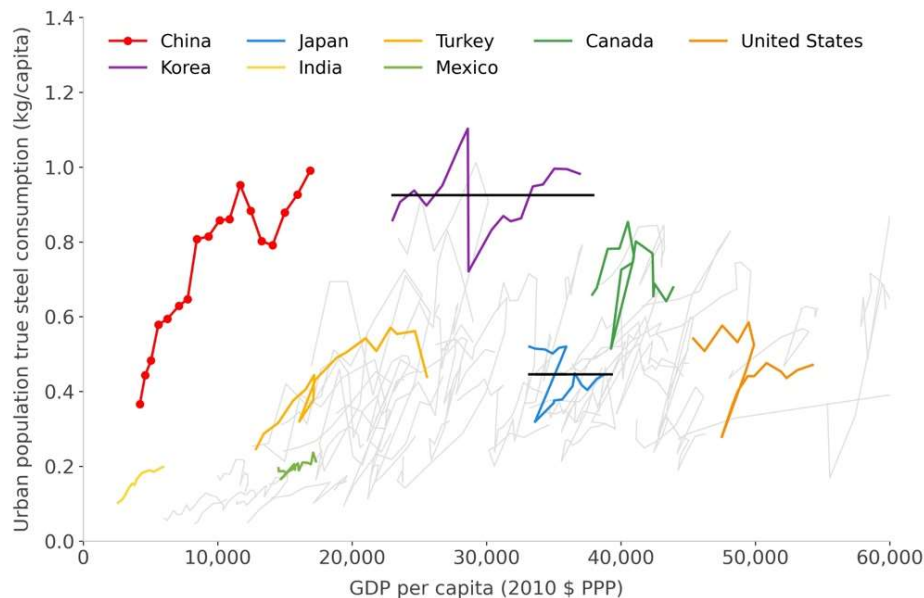


Steel industry development in China, 2020-2025

Last year China produced more than 1 billion tonnes of crude steel. After accounting for direct and indirect exports of steel, the country consumed an estimated 66 kg of steel per capita, which is high by international standards and all the more remarkable given the country's level of urbanization, which is a major driver of steel consumption. Only 60% of Chinese population is classified as urbanized according to government statistics, a level similar to Japan in the early 1960s and Korea in the early 1980s. When China's true steel demand is viewed on a per capita urbanized population basis, China consumes as much steel as Korea does today. The question is whether this level of consumption is sustainable.

China's urbanized per capita steel consumption is already as high as Korea



Source: Worldsteel, OECD, Worldbank, literature review

This year the government will publish its 14th five-year plan. This high-level policy framework will guide the country's development over the period 2020 – 2025. China's current investment led model of development is environmentally and economically unsustainable. The new five-year plan will shift the focus towards a more sustainable model where domestic consumption will become the key driver of economic growth. It won't mean an end to investment, but the focus will shift towards upgrading manufacturing and infrastructure that supports consumption and green and low carbon growth. China's recent commitment to achieve a carbon neutral economy by 2060, and peak carbon emissions by 2030 will also be reflected in the five-year plan and will put further pressure on the industrial and power generation sectors to start reducing their carbon emissions.

A draft document published by The Ministry of Industry and Information Technology (MIIT) at the end of last year outlined what all this means for China's steel industry. The plan calls for a better coordinated, cleaner more efficient industry with targets for pollutant emission and energy intensity. It also calls for improving raw material security for example in iron ore and increasing the use of scrap which is still very low compared to other countries. There will be a focus on innovation and developing low carbon steel processes like hydrogen metallurgy, non-blast furnace iron making but these are a long way away from wide scale commercialization.

Proposals to raise scrap consumption to 300 million tonnes a year by 2025 will have a more immediate effect on reducing carbon emissions. The target is achievable given that scrap consumption last year was reported to be 230 million tonnes.

If crude steel production in five years' time is unchanged on 2020 levels and scrap consumption rises by 70 million tonnes in line with the MIIT's target, iron ore consumption would fall by 118 million tonnes, equivalent to 10% of last years imports, and carbon emissions would fall by 133 million tonnes a 7% fall on 2020 levels. But if crude output were to fall back to the level seen just two years ago in 2019, emissions would fall by a further 7% and iron ore demand would be down by 213 million tonnes equivalent to 18% of 2020 imports.

The MIIT recently stated that as one of the largest industrial emitters of carbon dioxide the steel industry needs to start to reduce its emissions in 2021 by cutting output. If the government is successful in moving from investment, particularly in real estate, towards consumption to drive economic growth then steel demand should peak and decline. But the question is over what time frame. Many have called the peak of Chinese steel demand over the last decade only to be proved wrong as steel output reaches another record high. The indications are that this time it is different. It won't be easy, but over the next five years, declining steel demand will indicate that the government has succeeded in putting the economy on a more sustainable footing.

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