Economic Watch

China | What's behind the recent electricity crunch?

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Recently, all eyes are on China's electricity crunch. Widening power shortages in China have halted production at numerous factories, shops and households. Rationing has been implemented during peak hours in many parts of northeastern and southern China since last week, and residents said cuts were occurring sooner and lasting for longer.

In fact, China's massive industrial sectors has been wrestling with spurt in power prices and usage curbs since March, when provincial authorities ordered some heavy industry to curb use so that the province could meet its energy use target for the first quarter. In May, manufacturers in Guangdong, a major exporting oriented province, encountered similar requests to curb consumption as a combination of hot weather and lower than usual hydropower generation. Other major industrial zones along China's east coast have also encountered recent consumption caps and power cuts.

Indeed, China is in the grip of an electricity crunch as a shortage of coal supplies thus a sharply soaring coal price, very aggressive emissions standards and strong demand from manufacturers and industry due to the strong exports triggered widespread curbs on electricity usage.

The reasons behind…

The shortage of electricity literally means there is not enough electricity being generated by the power plants to meet the industry and household's demands. It relates to the incentive problem between power plants and coal mining companies. The current price mechanism of coal which is flexible in China and electricity which is fixed (subject to the authorities' adjustment instructions) discourages coal-fired power plants from generating more electricity to meet the increasing demand of the booming export engines and other manufacturing sectors when the coal price significantly soars in China recently.

Then what are reasons for coal price spurt? Except for a soaring global commodity price throughout the year due to the economic recovery in advanced economies and bottleneck of commodity supply, China's authorities' administrative orders to reduce coal mining in Shanxi province due to the security consideration and environmental protection reason also plays a role, as domestic coal supply also tumbled. Moreover, China's ban of Australian coal imports also counts, but not the primary reason since China is expanding coal imports from alternative sources (Mongolia, Columbia, Russia etc.)

Relatedly and importantly, it means China's coal-fired plants have adequate capacity to generate enough electricity for China's industries and residents' use on the condition that they are fed with enough coals. Remember China even has extra capacity to help other countries to build their coal-fired power plants via its ambitious "One Belt One Road" initiatives now. It was just a couple of weeks ago that President Xi Jinping pledged to stop financing these programs overseas under the US pressure for the environmental protection reason.

The other important reason among the all for electricity crunch is also concentrating on the aggressive carbon emission target. China's "carbon neutrality" target in 2060 with the mismatched growth target and strong growth demand (for achieving employment and social stability) on the other hand makes the authorities start to take a series of actions as early as possible. Under China's special institutional condition, the energy sector is fully controlled by the government, while the price of the energy is also regulated and controlled by the National Development and Reform Commission (NDRC). That means, the government can easily order the production reduction for the enterprises which heavily depend on coal, steel etc. to generate electricity.

More importantly, in order to achieve the carbon neutrality target, the central government also recently assigned very aggressive carbon emission targets to every level of local governments that the local government top officials have to meet these emission reduction targets for their promotion and succession. For them, the most straightforward and easiest way to achieve the emission target is to simply reduce the production capacity of the polluted enterprises through an administrative way.

All of these look quite like a "energy revolution", however, as long as the new energy technology has not been developed to replace the traditional coal and steel (take more than 70% of electricity generation currently) to generate electricity (which technically of course very difficult so far), it looks quite like a dilemma for Chinese authorities to achieve an aggressive carbon neutrality target by 2060 and maintain a high growth rate. The central government of course was fully aware of this situation of electricity crunch and called for "not to do revolutionary emission", however, as long as the emission targets are assigned to the local government, it is difficult to avoid the administrative order of electricity cut.

What will be the solutions by Chinese authorities?

This electricity shortage problem, as well as related production disruption, can be fixed given Chinese governments' super powerful intervention capability. The authorities will intervene in several ways to overcome it with different consequences, for good or bad.

First, the authorities will raise the electricity price, allowing some transmission to general inflation. With China's CPI at a very low level, they can afford to permit such a transmission.

Second, the authorities will increase imports of energy. This even creates a golden opportunity for China to repair its relations with Australia and even the US. It is probably a perfect deal if China imports more natural gas from the US and in return the US lowers its levies on China's exports. It will help the US to alloy their own inflation pressure as well.

Last but not least, electricity ration will continue in certain regions and industries. It will become more targeted, mainly affecting the industries with high pollution and electricity consumption or not in line with the authorities' industrial policies.

However, in the long run, the carbon neutrality pledge will put more constraints on China's growth. Both central and local governments will consider adjusting their industrial policies. The energy consuming industries will no longer be favored by inland regions as before even they can quickly expand GDP figures. In this sense, the current electricity ration is more like an alarming call for China on its way to meet its carbon neutrality promise.

The economic impact

First, it is all about the inflation, both domestically and globally. Although we have talked a lot about China's low inflation environment which is a vast difference with the US and the EU due to its tumbling pork price in the African Swine Flu cycle, the electricity price will certainly increase China's inflation in the future. That means, the transmission from PPI and CPI might be further strengthened as production capacity in mid-and downstream enterprises has also been reduced. In addition, electricity shortage in China will affect its export price and contribute to the global inflation which has already been very high in both US and the EU.

Second, the electricity crunch is equivalent to a further production capacity reduction, which will drag on growth from supply side. All the economic consequences will be reflected in the coming economic indicators, particularly industrial production. That means, growth is expected to be further slowdown from the previous readings, among other risks, such as the authorities' crackdown on several sectors to promote common prosperity and social equality, corporate default risk of Evergrande etc.

Third, the situation calls for more monetary and fiscal easing measures in the rest of the year to deal with growth slowdown and to dispel market panic. As China's comparatively closed capital account and the current low inflation environment, Chinese authorities have a large policy room to conduct easing monetary measures in the rest of the year, although it is diverging with the FED QE Tapering and interest rate hike in other central banks. From the fiscal policy perspective, the authorities will further speed up local government bond issuance to support infrastructure investment going forward.

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