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## Old Wang Coal?

Is China, the world's largest producer and consumer of coal, a promising market for U.S. coal exports?

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Is China, the world's largest producer and consumer of coal, a promising market for U.S. coal exports?

China is big and is thus superlative in many ways. It's got the highest population and the biggest labor force. It's the biggest holder of U.S. debt and the "biggest recipient of foreign direct investment in the world."

It's also the world's largest emitter of greenhouse gases -- a superlative unlikely to go away any time soon because China has yet to commit to lowering its emissions.

Beijing has, however, promised to lower China's carbon intensity (the amount of carbon emissions per unit of gross domestic product) by 17 percent below the 2010 level by 2015. (Note: as long as a nation's GDP rises faster than its carbon intensity declines -- the case for China -- its emissions will increase.)

To meet its goal, China will need to achieve an average cut in intensity of about 3.4 percent each year over the five-year period. They didn't do too well in 2011, with their carbon intensity remaining essentially flat, but 2012 was a different story. Last year, China's carbon intensity reportedly decreased by 3.5 percent. Over the next three years China will have to cut its intensity by another 13.5 percent to achieve the 17 percent reduction.

### China: The King of King Coal

To achieve this target reduction, you'd think China would steer clear of carbon-intensive fuels like coal. So far, however, just the opposite appears to be happening; coal has been ascendant and the stats are striking.

Because coal is cheap and abundant, it is one of the world's most widely used fuels. In 2008, the Energy Information Administration reports, "coal accounted for 28 percent of world energy consumption." But China's coal dependence is considerably larger -- accounting for about 70 percent of its total energy production and forming the very backbone of its economy. And so, as China's economy has grown (at an annual GDP rate of about 10.5 percent since 2000), so has its consumption of coal, which has increased by an average of nine percent per year over the same period. By comparison, average coal demand growth for the rest of the world has been about one percent per year.

In 2011, China accounted for 87 percent of the global increase in coal consumption, and now accounts for almost one half of all the coal



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consumed in the world. To put it in its starkest terms, as per the EIA: "China consumes nearly as much coal as the rest of the world combined."

Incredible? Sure, but perhaps not all that surprising given that the China's economy provides consumers in the United States and elsewhere with so many low-cost goods. (See here and here.)

If you're concerned about climate change, all that coal-burning is not welcome news, but a change may be in the offing. Earlier this month, Beijing announced it will cap total coal usage at essentially its current rate. But I wouldn't pop the corks just yet. Given that 70 percent of China's rapidly growing economy is powered by coal, stopping the rapid rise in China's coal usage while maintaining that economic growth will be no easy feat.\*

### **China's Coal Appetite a Boon for U.S., but Will It Last?**

To acquire the coal it needs, China became a net importer in 2009 -- a happy circumstance for U.S. (et al.) coal producers. As demand for coal has waned in the United States, largely because of fuel switching to natural gas, U.S. coal producers have been able to make up some of the slack by exporting more coal. Projections for 2012 show an expected new record for U.S. coal exports of about 125 million short tons. (Final numbers expected later this year.) While U.S. exports to China currently make up only about four percent [pdf] of total U.S. coal shipments overseas, the more than eight million short tons [pdf] shipped in 2012 through September are double the 2011 shipments over the same period.

U.S. coal producers may be looking to China as a long-term growth market for their coal. (See here and here.) But that may not be such a good idea. I can think of at least three reasons why:

As noted above, the Chinese government has announced plans to stabilize its coal consumption at current levels. Of course declaring an intention to cap coal usage in such a coal-dependent country is one thing; actually doing it is something else. Nevertheless, if you're a coal exporter to China, it has to give you pause.

China isn't importing coal because it lacks domestic coal. (Remember, China is the world's "largest top coal producer.") China is importing because it lacks the infrastructure to extract and bring the coal to market. As that infrastructure is built out, its need for foreign coal will shrink.

Like the United States, China has ample shale gas reserves (\$ub req'ed) and will soon get into the business of fracking. (Huzzah.)

Is all this wild speculation? Global consulting firm IHS doesn't think so; they project that China's coal imports have already peaked and will decline gradually through 2035.

There was a time in the United States when coal was king, but those days are on the wane. Today old king coal is more aptly called "wang" coal (*wang* is Chinese for *king*). The jury is still out on when, but there must come a day when old wang coal also begins to wane. We'll all be a lot merrier if it happens sooner rather than later.

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### **End Note**

\*One thing in China's favor as it works to reduce its coal dependence is its already sizeable investment in renewables. For example, for the fourth year in a row, China has installed more wind capacity than any other nation. The 15.9 gigawatts of onshore wind installed in 2012 brought its total wind capacity to 61 gigawatts, making wind China's third largest power source behind coal and hydro. It expects to reach 100 gigawatts by 2014 -- a year ahead of its latest 5-year plan goal.

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