

A New Line On Food Security

By Robert Ash

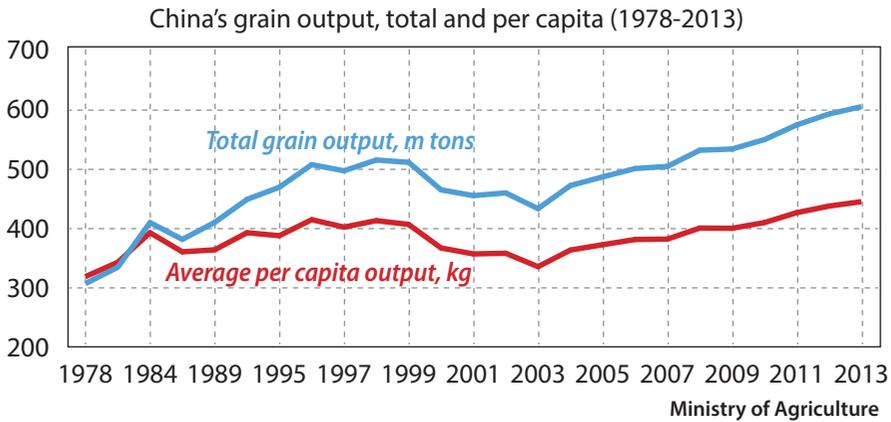
Beijing is changing its tune on food security. Previously, the target was to minimize imports of major foodstuffs and maintain 95% self-sufficiency in grain in order to meet the basic needs of an impoverished population. Food poverty persists in the form of 150mn Chinese who still suffer from chronic hunger. But the government is moving away from a single-minded obsession with self-sufficiency (except for rice and wheat), and focusing more on the rising demand from the urban middle class for a toxin-free diet. China's future food security policy will be driven less by fear that "we haven't enough to eat" (*bu gou chi*), and more by the anxiety that "we don't dare to eat" (*bu gan chi*).

The new thinking, with its greater tolerance for imports and stronger focus on food quality and safety, was first articulated by the government in December 2013. By February 2014 the new slogans had led to press reports that China was abandoning its grain self-sufficiency target--a claim the Ministry of Agriculture (MOA) promptly denied. In fact, China's grip on food self-sufficiency has been slipping for years, and the friendliness to imports is a case of policy catching up with reality. It is true, as MOA asserts, that China is still 95% self-sufficient in *cereals* (rice, wheat, corn). But for *grain* (which by Chinese definition also includes legumes and potatoes), the self-sufficiency ratio has already fallen below 90%, thanks mainly to the explosive growth in soybean imports since the late 1990s. More recently, China has started importing corn and these imports will almost certainly rise as the demand for animal feed grows in response to urban China's increasingly protein-rich diet.

Despite its recognition that increased imports are inevitable, Beijing will still aim to moderate imports—especially for grains directly consumed by

Robert Ash is professor of economics at the School of Oriental and African Studies (SOAS), University of London, and a professorial fellow of the SOAS China Institute.

Ever upward?



humans—by ramping up domestic yields of many foodstuffs. Such increases are theoretically possible but in practice will be hard to achieve. Optimists note that since 2003 China's grain output has grown at an average annual rate of 3.4%. But much of this impressive growth was simply a recovery from a severe production downturn in 1998-2003. And *per capita* grain production only regained its 1996 peak in 2011. Since 1978, China's per capita grain production has grown at an average rate of just under 1% a year.

Sustaining even that rate of trend growth faces formidable challenges:

- Resource shortages, especially of land and water, may well worsen. Physical resource scarcity is exacerbated by soil and water pollution, resulting in contamination of food output.
- The predominance of small scale farming is inimical to modernization, and the government is not yet willing to introduce a real market for farmland that would accelerate consolidation. Recent years have seen a more relaxed attitude towards transfers of land use rights, facilitating land consolidation. At the end of 2013 almost 23mn hectares (less than 20% of total arable area) had been transferred to larger farming units. But their average size is still too small to access the most efficient farm technology. Nor is there any guarantee that managers of larger farms will find it cost-effective to grow grain.
- The impact of climatic factors is intensifying. In 2012, 20% of the sown area of Heilongjiang, China's pre-eminent grain producing province, was affected by drought and flooding. In Inner Mongolia, the figure was almost 30%, and almost 5% of the sown area suffered total crop failure. The crop most likely to be adversely affected by future climate change is corn.

There are three ways to increase food production. The first is to increase land under cultivation. This is not really an option: China has a very limited supply of arable land and struggles even to maintain that amount against encroachment by expanding cities. The second is to increase the amount of double or triple cropping. Multiple cropping has increased since the late 1990s but climatic and other factors severely limit further gains in this area.

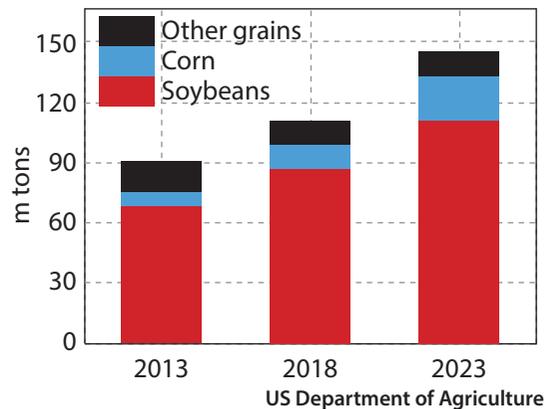
What's left is improving land productivity. Chinese rice yields are already among the highest in the world, comparable to those of Japan and the EU. Its wheat yields too are about the same as in the EU and significantly higher than in the US. The main scope for improved yields lies with corn. Currently, China's average corn yield (6 tons per hectare) is 86% of the EU average and only 60% that of the US. But since 2005 China's corn yield has grown by just 1.5% a year, compared with 1.9% for all grains. In theory, this rate of gain could be accelerated, but only with the application of a complicated cocktail of technology, credit, new market mechanisms and land consolidation. This is a daunting task.

Adding it all up, there is little doubt that China's grain imports will increase substantially in coming years. Assuming continued annual grain production growth of 2.5%—the rate sustained since 2008—and accepting the US Department of Agriculture's grain import projections, China's level of grain self-sufficiency could fall to 85% as early as 2023.

For commodity traders an important question is whether major grain exporters will be able to meet China's burgeoning demand for feed grain without destabilising prices and endangering food security in countries that face endemic food poverty. Given favorable conditions in the US, Eastern Europe and South America, global export capacity seems able to accommodate China's soya and corn import requirements. Additional supply could also be created by Chinese investment in agricultural land in Africa, a trend being actively promoted by Beijing. Even so, the risk of China-driven shocks to the global prices of feed grains is significant, given USDA's projections for the rise in China's share of global feed imports over

Corn and soybeans lead the way

China's projected grain imports



the next decade: 12 percentage points for corn, 16 pp for soya and 25 pp for sorghum.

The big problem: keeping it safe

For China's policy makers, perhaps a bigger challenge than keeping import growth in check is ensuring the safety of the domestic food supply. Food safety is already one of the major anxieties of the burgeoning urban middle class: it topped the list of consumer concerns in a 2012 survey by the Communist Party magazine *Xiaokang*, cited by 82% of urban respondents, and a 2013 survey by the Pew Research Center found nearly 40% of respondents named it a "very big" problem.

The government response has been to ramp up enforcement—more than 50,000 food safety violations have been formally investigated since

2011, according to the Ministry of Public Security—and to approve a new Food Safety Law, which will take effect in 2015. The new legislation will establish much more stringent food safety norms, while also imposing harsher penalties on offenders and negligent supervisory officials. The Food and Drug

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Administration, which was elevated to ministerial status in 2013, will assume full responsibility for food safety supervision, uniting a previously fragmented regulatory system

The problem is that stringent standards may prove difficult or impossible to enforce given the extreme diffuseness of China's food supply and distribution systems. Most food-related businesses in China employ no more than 10 workers. In such conditions tracing food safety violations to the point of origin is well-nigh impossible, and it is easy for producers and suppliers in search of higher profit margins to evade the law.

Even as the focus of food security thinking shifts from self-sufficiency to safety, the centrality of agriculture policy as one of the pillars of Party rule is unlikely to diminish. An old Chinese saying is "without agriculture, there's no stability; without grain, there's chaos" (*wu nong, bu wen; wu liang, ze luan*). The worldview it expresses is certain to remain relevant to China for years to come.