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6 April 2015

Australia has not recognised the change in Chinese demand for iron ore and coal

A closer look at the changes in Chinese demand for our resources indicates that it will decline sharply, with no replacement markets in sight, and that spells major economic trouble for us.



Falling demand for iron ore will run into the tsunami of new supply. *Reuters*

by **Ross Garnaut**

Australia's current economic Dog Days had their origin in failing to recognise early or clearly enough the effects of the 21st-century China resources boom.

Dog Days in the ancient Mediterranean were the hottest, crankiest days of summer, when people made mistakes and social relations fell apart. The name came from the observation that in the days of greatest summer heat the Dog Star, Sirius, rose above the horizon just at or before sunrise.

Australia's miners began to invest heavily in response to stronger Chinese demand for metals and energy and higher prices from just before 2011 – when a new model of Chinese economic growth was causing growth in demand to decelerate and prices to fall.

Growth in resources output is keeping Australia out of formal recession. Trade theory recognises the possibility that growth in an export industry can be "immiserising" – with falling export prices reducing incomes more than rising volumes increase them. Recent growth in Australian resources production has been immiserising, because the larger export volumes have made us poorer.

If implemented smoothly, China's new model of growth will see average economic growth fall from a bit above 10 per cent a year through the first decade of this century, to around 7 per cent. In the absence of any change in capital output ratios, the amount of investment required to support this growth will fall by about one-third.

Demand for steel and therefore iron ore and coking coal is concentrated overwhelmingly in investment rather than consumption. The fall in the ratio of investment to GDP leads inexorably to a large absolute fall in steel demand. This is the old-fashioned Keynesian accelerator at work. There will be new urban apartments, railway systems and airports to build – but fewer each year than when overall growth was higher. It is the change in the rate of growth that drives changes in demand for capital goods, more than the rate of growth.

That large absolute fall in steel demand happens if all goes smoothly. If the adjustment were bumpy, things would be worse for a while. Structural change of the dimension envisaged in China's new model of economic growth is an experiment without precedent. It is more likely than not to work out in the end. But it would be surprising if there were no bumps in the road.

Australia's resources boom was a China boom. From 2007 to 2014, China accounted for more than the whole of the global increase in steel production. Chinese production rose from 489 million to 823 million tonnes. The rest of the world's production fell from 855 million to 839 million tonnes. Chinese production will fall this year.

My Chinese friends from the 1980s include the technical and business leaders who in the past two decades guided the building in China of almost as much steel-making capacity as had accumulated in the rest of the world in the whole of industrial history. My old friends say that Chinese production should fall from a bit above 800 million tonnes today to about 600 million tonnes in 2030. With Chinese exports pouring onto world markets at an annual rate of 100 million tonnes and taking global prices down with them, and with environmental pressures forcing early responses, much of the shrinkage will happen early. The experienced judgment of the old leaders points in the same direction as analysis of the effects of the new model of Chinese growth.

Hebei, the province surrounding Beijing, was producing about 280 million tonnes of steel a year at its peak. That will be reduced to 200 million tonnes by 2020 – and most of the fall by 2017.

As Chinese economic growth matures, recycling of scrap becomes more important. Not for the foreseeable future in the proportions of the old industrial countries, but enough to lift steel production from scrap from 100 million tonnes a year in the recent past to several hundred million tonnes by 2030. So demand for the blast-furnace raw materials, iron ore and coking coal, will fall more rapidly than total steel production.

Falling demand for iron ore will run into the tsunami of new supply from Vale, BHP Billiton, Rio Tinto, Fortescue, Roy Hill, Sino Iron and others. The price trend is down until enough of the old or new supply capacity has been destroyed to balance the decline in demand.

Coking coal is not quite as bad as iron ore because there is less current investment in expanding supply.

Thermal coal is worse. The effects of the new model of Chinese economic growth are compounded by deliberate efforts to reduce the use of coal because of its local and global environmental effects. This is supported by massive expansion of supply of the lower-emissions alternatives to coal – hydro, wind, solar, nuclear, gas and biomass.

From 2007 to 2012, China accounted for more than the whole of the increase in global coal consumption. Chinese consumption rose from 2.9 billion to 3.9 billion tonnes. The rest of the world's fell from 4.3 billion to 4.2 billion tonnes.

Chinese coal consumption grew slowly in 2012 and 2013 and fell by about 3 per cent in 2014. It is expected to fall again this year. It probably won't regain the heights of 2013.

What about growth in India, south-east Asia and Africa? Even together they are no China in prospective demand for resources through to 2030. India has substantial iron ore of its own, which it is largely reserving for local steel-making. It is seeking to make much greater use of decentralised renewable electricity supplies. India's minister for energy has spoken of ceasing imports of thermal coal within a few years. Africa, too, is well endowed with iron ore, and transport economics will be more influential in shaping intercontinental trade as prices fall. Africa is better endowed with renewable energy resources than India.

South-east Asia will use more steel and for a while more thermal energy. Indonesia is now a larger exporter of thermal coal than Australia. It will use its own and has advantages in supplying its immediate neighbours.

For iron ore, Southeast Asia will offset a small part of falling Chinese demand. That is opportunity for Australia – if we lift our game and start to manage the Dog Days well, for more than unprocessed iron ore. This modestly reduces the amount of old and new mining capacity that has to be scrapped before the markets balance.

The hottest of these Dog Days are ahead of us.

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