ECN230 SRP session 5. Large Country Price Effects

Economist, "Free exchange: Inflated claims", 5 Sep 2015, p. 67.

As the world's biggest exporter, China dominates global shipments of everything from smartphones to sofas. However, in the 2010s attention turned to another Chinese export that appeared to be washing up on distant shores: deflation. China's producer-price index (PPI) fell for 41 months straight in late 2015. Economic growth was slowing; many Chinese industries suffered from overcapacity; its ravenous appetite for commodities was waning. All that slack must surely have put downward pressure on prices across much of the world many had thought. [As the largest exporter, downward pressure on prices in China would be reflected in lower prices elsewhere through an improvement in the rest of the world's terms of trade.]

It was not the first time that China had been accused of exporting deflation. Before the global financial crisis, China's impact on world prices seemed a good thing, making televisions and fridges more affordable. In 2015, it was seen as baleful. The worry was that anemic inflation was hurting the world economy. Consumers had less incentive to spend, companies had less reason to invest and debts, fixed in nominal terms, remained onerous.

Yet several studies showed that China was never quite the deflationary force that it was said to be before the crisis—or at least that it caused both inflation and deflation. By the same token, a closer examination of the data over the past year also suggested that the then current, unusually low level of global inflation could not, for the most part, be traced back to China.

Tarhan Feyzioglu of the IMF and Luke Willard of Princeton University (2006) cast doubt on the idea of China-led deflation when it first emerged as a big exporter. They showed that although Chinese manufacturers helped bring down the price of household appliances in the US and Japan, rising Chinese food consumption, a by-product of its growing wealth, contributed to higher food prices abroad. The trends cancelled each other out, with the result that China had only a small, fleeting impact on foreign inflation.

Sandra Eickmeier and Markus Kühnlenz (2013) of Germany's central bank reached a similar but starker conclusion. They found that the "supply shock" from cheap Chinese goods explained, on average, 1% of changes in consumer prices outside China from 2002-11. The "demand shock" from China's rapid growth was nearly four times bigger, accounting for 3.6% of changes in global consumer prices, thanks mainly to China's hunger for commodities. About 95% of swings in global inflation were thus down to non-Chinese factors.

These results shed light on the country's impact. One way it might push prices down is by dumping excess output on other countries. Global steelmakers complained, for instance, that China's state-subsidised companies were undercutting them. But the broader deflationary impact of cheap China-made goods was almost certainly smaller than many assumed. The kinds of products in which China excels formed a relatively minor part of consumer-price indices. In the US, for instance, computers and smartphones accounted for less than 1% of the index, whereas the share of food is about 15%. Just as cheap Chinese labour did not lead to serious deflation in the early 2000s, so its excess manufacturing capacity was not the main cause of low inflation in 2015.

The demand shortfall arising from China's slowing growth was sure to be more important. This was especially true of its impact on commodities. However, even this should not be exaggerated. According to the Bundesbank paper, China drove about 11% of commodity-price inflation from 2002-11. That is a big impact for a single country, but it still means that other things such as supply-side constraints and demand from other countries, explained the majority of price changes.

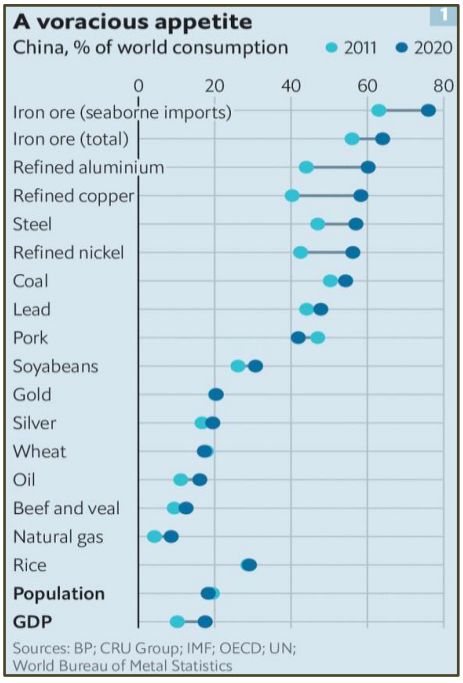
This points to an under-appreciated fact about China's role in commodity markets: for all the talk of its far-reaching impact, its demand was actually very concentrated. It consumed as much as 60% of the world's production of certain metals, but accounted for just a tenth of global imports of fuel and a twentieth of food imports. Food and fuel loom far larger in price indices than metals. Although Chinese PPI and commodity prices are closely related, they have been so since China was a much smaller importer (see chart). This suggests that commodity prices help determine the path of inflation in China more than the other way around. China is more a price-taker than a price-maker.

Economist, "China and commodities: Material clout", 20 Nov 2021, p. 65-6.

Imports of liquefied natural gas (LNG) was 14% higher in 2021 relative to 2020, causing prices of LNG to surge with ripple effects around the world. LNG cargoes were rerouted east, with Europe finding itself short of gas. Rising gas prices underscored the importance of coal in China, of which it consumed 55% of the world's supply. China's post-pandemic economic resurgence meant that in Oct 2021 it was importing nearly twice as much coal as in the same month in 2020, causing prices to boom.

China's size has an effect. As a huge consumer and, in some cases, producer of materials, it can disrupt global markets even with modest tweaks to policy. Its clout has grown on the financial side of commodity trading too, thanks to China's three big futures exchanges. International traders say that one cannot be successful without dealing on them. China wants to extend its influence over commodities further by turning the proliferation of local contracts, for instance, into international price standards.

The rule of thumb for commodity traders is that China consumes "half of everything". For some materials, such as iron ore, this is an understatement (see chart 1). China's size gives it influence in markets. But it also means that the authorities deem many commodities strategically important. And they are not shy about intervening.



Take maize. A glut in China in 2010-15 pushed government inventories up to unprecedented levels and led the authorities to reduce financial incentives to corn farmers. The resulting fall in output was too sharp, forcing China to look overseas to replenish stocks. Corn imports jumped from less than 5m tonnes a year in 2013-18 to almost 30m tonnes in 2020. US corn prices doubled.

China's strategies involve boosting supply to keep prices low. To keep a lid on infrastructure costs in the 2000s, it invested in a huge number of aluminium smelters and encouraged producers to raise output. In some cases, China's appetite has helped create new financial systems. Iron ore, the main ingredient of steel, is a good example. Between 2003 and 2016 China's imports of the ore rose tenfold as it built masses of steel-intensive infrastructure. It is the world's biggest consumer of iron ore, for which it has also become "the world's most sophisticated" market. China's commodity-futures exchanges are world-beating. In 2020 Dalian, Shanghai and Zhengzhou were the biggest with the number of contracts traded on these six times higher than on the US's CME Group's exchanges (see chart 2). In terms of value they were roughly equivalent. From Jan to June of 2021 the ten most-traded agricultural futures contracts were Chinese. So were eight of the top ten metals contracts and five of the top ten energy contracts.

Chinese exchanges look different from Western ones. They are dominated by retail investors. In 2016 this group held around 85% of open positions, compared with 15% on Western bourses. This affects "price discovery" because they trade smaller lots, and hold them for less time. It adds to liquidity, but a lack of expertise means retail investors tend to accentuate price swings. For the most part, they lost money, says Xiao Jin of Orient Futures, a broker.

In Beijing, the next step in the development of China's commodity markets is to turn the country's benchmarks into global standards. One reason is to boost use of the yuan, which accounts for only 2-3% of cross-border commodity trades, compared with the dollar's 38% share.

China's way of protecting its manufacturers and consumers from price volatility has been through isolation. Only select state firms could trade on foreign commodity-futures exchanges, and only a small group of international traders could access Chinese ones. Those exchanges had no warehouses—which are where physical commodities are delivered—outside the mainland. Foreign exchanges were not allowed warehouses inside China. China's plan is to loosen the rules for international traders and launching more futures contracts to accelerate the participation of overseas traders in Chinese markets and building another yuan-denominated exchange.

Two problems affect these ambitions. Climate-friendly policies require vast amounts of metals to build wind turbines and power grids. The energy transition should make commodity prices more volatile, as demand and supply adjust over time and one occasionally overshoots the other. China's economy will slowly become more services-oriented, reducing the need for commodities. Its consumption of some metals, such as aluminium, is expected to peak in the next few years.

Another hurdle is trust. China's commodity exchanges are closely tied to the state. Senior managers move between exchanges and government departments. Authorities intervene readily in markets. In 2015 China intervened in equity markets after a downturn. Short-selling was banned and investors with big stakes in companies prevented from selling shares. This worries commodity investors about the predictability of Chinese markets. China dabbled with commodity-market intervention in 2020, as prices went berserk. Authorities worried that rising costs would squeeze the manufacturing sector.