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How to feed the planetThe global food supply chain is passing a severe test

**Keeping the world fed**

If you live in the rich world and want an example of trade and global co-operation, look no further than your dinner plate. As the lockdowns began in the West two months ago, many feared that bread, butter and beans would run short, causing a wave of stocking-up. Today, thanks to fleets of delivery lorries filling supermarket shelves, you can binge-eat as you binge-watch.

This capitalist miracle reflects not a monolithic plan, but an $8trn global supply chain adapting to a new reality, with millions of firms making spontaneous decisions, from switching rice suppliers in Asia to refitting freezers. The system is far from perfect: as incomes collapse, more people are going hungry. There are risks, from labour shortages to bad harvests. And there is an irony in seeing the industry grapple with a crisis that probably began with the sale of pangolin meat in a market in Wuhan. But the food network is so far passing a severe test. It is crucial that, during and after the pandemic, governments do not lurch into a misguided campaign for self-reliance.

The supply chains behind an iPhone, or a car component that criss-crosses the Rio Grande, are wonders of co-ordination. But the unsung star of 21st-century logistics is the global food system. From field to fork, it accounts for 10% of world GDP and employs perhaps 1.5bn people. The global supply of food has nearly tripled since 1970, as the population has doubled to 7.7bn. At the same time, the number of people who have too little to eat has fallen from 36% of the population to 11%, and a bushel of maize or cut of beef costs less today than 50 years ago in real terms. Food exports have grown sixfold over the past 30 years; four-fifths of people live in part on calories produced in another country.

This happens in spite of governments, not because of them. Although their role has declined, they still sometimes fix prices and control distribution. The European Union’s farm tariffs are four times those on its non-farm imports. A dozen or so big exporters, including America, India, Russia and Vietnam, dominate staples such as wheat and rice. Half a dozen trading firms, such as Cargill from Minnesota and COFCO from Beijing, shift food around the world.

Concentration and government intervention, along with the vagaries of the climate and commodity markets, mean that the system is finely tuned and can misfire, with devastating consequences. In 2007-08 bad harvests and higher energy costs pushed up food prices. This led governments to panic about shortages and ban exports, causing more anxiety and even loftier prices. The result was a wave of riots and distress in the emerging world. It was the worst food crisis since the 1970s, when high fertiliser prices and bad weather in America, Canada and Russia caused food production to drop.

Despite the severity of today’s shock, each layer of the system has adapted. The supply of cereals has been maintained, helped by recent harvests and very high stocks. Shipping firms and ports continue to move around food in bulk. The shift from eating out has had dramatic consequences for some companies. McDonald’s sales have dropped by about 70% in Europe. The big retailers have cut their ranges and rewired their distribution. Amazon’s grocery e-commerce capacity has risen by 60%; Walmart has hired 150,000 people. Crucially, most governments have learned the lesson of 2007-08 and avoided protectionism. In terms of calories, only 5% of food exports face restrictions, as against 19% back then. So far this year prices have dropped.

But the test is not over yet. As the industry has globalised, it has grown more concentrated, creating bottlenecks. Covid-19 outbreaks at several American slaughterhouses have cut pork supplies by a quarter—and boosted wild-turkey hunting licences in Indiana by 28%. America and Europe will need over 1m migrant workers from Mexico, north Africa and eastern Europe to bring in the harvest. And as the economy shrinks and incomes collapse, the number of people facing acute food shortages could rise—from 1.7% of the world’s population to 3.4%, the un reckons, including in some rich countries. This reflects a shortage of money, not food, but if people go hungry governments will, understandably, take extraordinary measures. The ever-present risk is that rising poverty or production glitches will lead panicky politicians to stockpile food and limit exports. As in 2007-08, this could cause a tit-for-tat response that makes things worse.

Governments need to hold their nerve and keep the world’s food system open for business. That means letting produce cross borders, offering visas and health checks to migrant workers, and helping the poor by giving them cash, not stockpiling. It also means guarding against further industry concentration which could grow, if weaker food firms go bust or are bought by bigger ones. And it means making the system more transparent, traceable and accountable—with, for example, certification and quality standards—so that diseases are less likely to jump undetected from animal to human.

To understand food as a national-security issue is wise; to bend that understanding to self-sufficiency drives and blunt intervention is not. Already, before this year, food had become part of a trade war. America has sought to manage its soyabean exports and put tariffs on cheese. President Donald Trump has designated abattoirs part of America’s critical infrastructure. President Emmanuel Macron has called for Europe to build up its “strategic autonomy” in agriculture. Yet food autarky is a delusion. Interdependence and diversity make you more secure.

The work of the food-supply system is not yet done. In the next 30 years supply needs to rise by about 50% to meet the needs of a wealthier, growing population, even as the system’s carbon footprint needs at least to halve. A new productivity revolution is required, involving everything from high-tech greenhouses near cities to fruit-picking robots. That is going to require all the agility and ingenuity that markets can muster, and huge sums of private capital. This evening, when you pick up your chopsticks or your knife and fork, remember both those who are hungry and also the system feeding the world. It should be left free to work its magic not just during the pandemic, but after it, too.■