It's a Different World Now Robert G. Kahl, CFA, CPA, MBA https://SabinolM.com

Growing a global economy while reducing food supply and energy sources will be a difficult task. Declines in production and trade also increase the risk to the financial system as corporations will struggle to pay interest and principal on debt held by banks and other creditors.

The outlook for global food supply has changed dramatically since the beginning of the year. When the war between Russia and Ukraine began, it impacted grain production, and exports from those two countries came to a halt. On July 22, Russia and Ukraine signed a deal to resume grain exports from Black Sea ports. Since then, the Odessa port has been bombed and a Russian ship loaded with grain has been detained.

Russia produces about 13 percent of global fertilizer supply and suspended exports when the war started earlier this year. The three major types of agricultural fertilizers are potash, phosphate, and nitrogen. Russia has since resumed exports, but many countries are now mandating major reductions of fertilizer use that will reduce crop yields.

In 2015, the United Nations adopted Agenda 2030 with 17 Sustainable Development Goals (SDGs), which included 169 specific targets covering many facets of the economy and life. While some of the SDGs sound benign and worthy of support, the implementation involves some major sacrifices. For example, the UN 2014 report "Building a Common Vision for Sustainable Food and Agriculture: Principles and Approaches" calls for drastic restrictions on the use of fertilizer, pesticides, emissions, and water in the agriculture sector. As the UN pushes an agenda in concert with the World Economic Forum (WEF) to meet its goals, food production appears to be a secondary consideration. These policies are now being implemented in many countries.

In the spring of 2021, Sri Lankan President Rajapaksa banned synthetic fertilizer and pesticide imports. President Rajapaksa argued that chemical fertilizers and pesticides caused adverse environmental and health impacts, including a mysterious kidney disease. The change in agricultural policy has reduced crop yields. For the growing season that ended in March, estimates of the declines in crop production vary widely from 20 to 70 percent, depending on the type of crop. Rice production is expected to decline by 40 to 50 percent nationwide. There has been a devastating impact on farmers who represent 30 percent of the labor force.

Sri Lanka has reversed course to some extent and the government has promised to make some fertilizer available, but the damage has been done. The country has a low level of foreign currency reserves, fertilizer prices are much higher than last year, and crop yields are down

dramatically. President Rajapaksa fled the country on July 13, when protesters stormed his official residence. The Sri Lankan Parliament voted in former Prime Minister Ranil Wickremesinghe as President. However, the country remains unstable as many businesses are shut down and supplies of food and fuel are scarce.

The Netherlands is the second largest food exporter after the United States. In June, the Netherlands government announced that it would reduce emissions of ammonia and nitrous oxide, which are byproducts of livestock farming. They would also reduce the use of nitrogen fertilizers by 50% by 2030. The targeted reduction is expected to require a 30% reduction in livestock across the nation, making it unprofitable for some smaller farms.

Dutch farmers organized a group called the Farmers Defense Force. They have protested in city streets with signs such as "No Farmers, No Food" to raise awareness and increase popular support. They have also withheld deliveries from some grocery stores, smeared manure outside the home of the agriculture minister, and blocked highways with burning hay bales and tires.

On July 22, Canada's Prime Minister, Justin Trudeau, met with provincial agricultural ministers who expressed serious concerns about the extent and timing of fertilizer reductions. Trudeau's administration is imposing restrictions on the use of nitrogen fertilizers to reduce nitrous oxide emissions by 30%. The Saskatchewan Minister of Agriculture, David Marit, said in a statement, "We're really concerned with this arbitrary goal. The Trudeau government has apparently moved on from their attack on the oil and gas industry and set their sights on Saskatchewan farmers."

Nate Horner, Minister of Agriculture in Alberta, added, "This has been the most expensive crop anyone has put in, following a very difficult year on the prairies. The world is looking for Canada to increase production and be a solution to global food shortages." In 2015, the UN estimated that 829 million people were undernourished, and it will surely go higher during the next few years.

Peter Zeihan is a geopolitical analyst and author of the book, *The End of the World is Just the Beginning: Mapping the Collapse of Globalization*. In the introduction to his book, he is unequivocal and writes:

We've been living in a perfect moment and it's passing. The world of the past few decades has been the best it will ever be in our lifetime. Instead of cheaper, better, faster, we're rapidly transitioning into a world that's pricier, and worse, and slower. Our world is breaking apart.

Maggie Lake of Real Vision Finance interviewed Peter Zeihan on May 31 and he offered this summary of fertilizer use and crop yields around the globe.

It takes ten years to bring a new potash facility online. It takes at least three years for a nitrogen system or a phosphate system. The Chinese have removed

phosphate from the system because they are concerned about food security in their own country. And China used to be the world's largest phosphate exporter. Potash used to come from Belarus and Russia primarily, and Canada is a big supplier which is good for the United States but for everyone else, it's kind of screwed. There are some new facilities that are coming online but they were kind of baked into the math because they were coming for years, and we knew they were coming. There may be a little bit of surge capacity but it's already too late for the northern hemisphere's planting season. If you're going to apply fertilizer, you've already done it this year. And fertilizer prices, based upon type, are already up 50 to 200 percent. That means in the United States, we have seen a significant amount of crop switching as farmers choose outputs that don't require so many inputs. And that's something we can do here because we can finance the difference. But most of the world doesn't have access to something called farm credit.

Now, you go to the rest of the world and you're talking about something like farmers either not planting on what they consider to be their marginal lands because they will only produce with fertilizer and/or using less fertilizer for the crops that they choose to grow. So, we know that we're going to have a poorer harvest on a global scale, but we're not going to know just how bad that is until the end of the third quarter or beginning of the fourth quarter.

The final piece is, of course, grain stocks. We have about two months, globally, in terms of stocks saved up. But half of that is in China and every time the Chinese have tried to tap their grain stocks, they've discovered that it's rotted to almost nothing because their storage facilities are awful.... So, we really have only four or five weeks in terms of reserves and that's very concentrated in specific countries. By the time we get to October, we're going to have a very solid idea of how short we are.

Part of the reason that we're not panicking about the food situation right now is that most of the world, at the moment, is eating last year's harvest. So, there was no problem with the inputs into the system. When you can't really tell what India's going to produce in four months, you look back and you see the flows are fine. That's helpful to a certain degree and it certainly takes away from some of the panic. It's not until we start the harvest in the northern hemisphere that we're really going to have a good idea.

If you have any questions or comments, please contact me.

Sincerely, Robert G. Kahl CFA, CPA, MBA