TEVIS
INVESTMENT MANAGEMENT

Why everyone's talking about the supply chain

The economy runs on supply and demand. Recently, however, there's been a lot more scrutiny on the supply side of things. That may be a secret blessing, since it's given us a better understanding of an evolving and complex supply chain—a supply chain that influences everything from the price of Halloween candy to mortgage rates. Let's dig into why the supply chain matters now and the myriad factors that impact it.

From industrialization to globalization

It's important to understand what we mean when we say "supply chain" because even the term itself can feel a bit like jargon. Essentially, we're talking about all of the different materials and steps that go into creating a product. Think of every material as a link on a chain.

For instance, consider a chocolate chip cookie. To make that cookie, you'll need raw ingredients like sugar, flour, eggs, and chocolate chips. With the exception of eggs, those things don't just occur in nature.

To get sugar, you start with sugarcane grown in a tropical climate. It has to be harvested and then refined—processes that require labor and equipment. The equipment tends to be made up of metal, plastics, or a combination thereof. Those materials need to be mined or processed, refined, and adapted into equipment, too.

To get flour, a similar process takes place, but with wheat.

Once upon a time, pre-industrialization and globalization, these processes were fairly straightforward, and they took place relatively close to home. These days, however, wheat grown in Idaho might be processed at a mill in North Dakota using equipment manufactured in New Hampshire and made from stainless steel imported from China.

As supply chains get longer and more complex—think of all the states and countries and variables we covered just to create two of the primary ingredients in a chocolate chip cookie—there are more opportunities for disruption.

Taxes and tariffs

One area of complication that politicians love to debate, but that regular people (and, if we're being honest, many of those same politicians) don't really understand? Taxes and tariffs.

When businesses buy raw materials, they don't pay sales tax on those purchases. However, when businesses buy equipment or finished products used in the creation of raw materials, they pay sales tax. Businesses may also pay property taxes on land used for farming, or manufacturing, and so on. In other words, tax rates may indirectly affect the price of raw materials, but it's not a direct relationship.

When businesses buy materials from other countries (for instance, if you're importing sugarcane or processed sugar from Brazil), the importer must pay tariffs on those materials. Many raw materials are subject to import quotas in the U.S.—that means that tariffs are significantly lower until you hit a certain quota, and then tariffs jump to a higher rate.

When we decide to raise tariffs on specific products or from certain countries, it makes those goods more expensive for U.S. businesses.

Sticking with our chocolate chip cookie example: If the company that builds milling machines imports steel from China, then raising tariffs on Chinese steel imports means that milling equipment will

probably get more expensive. Replacement parts and servicing might get more expensive, too. If the mill has to pay more for the machines it needs to mill flour, it may offset those increased costs by charging consumers more. Before you know it, the price of flour increases, too.

In other words: In a global economy, higher tariffs could indirectly make cookies more expensive. Of course, this is a hypothetical example exaggerated to illustrate a point. But various versions of this scenario do play out at scale in numerous areas of our economy on a regular basis.

Trade and transportation

Outside of taxes and tariffs, a global supply chain means there's a lot of transportation involved in creating something as simple as a chocolate chip cookie. When there's a natural disaster, or a port strike, or even an increase in oil prices, it can "gum up" the supply chain. In other words, materials don't flow down the supply chain as smoothly, or cheaply, as they normally do.

(These same glitches can impact the production of raw materials, too.)

When these types of supply chain disruptions occur, the most common effect is higher prices. Either:

1. People need to pay more in labor or material costs to extract raw materials or transport things from one place to another, **or**
2. Disruptions resort in shortages, meaning prices go up as a result of basic supply and demand.

In short: We're hearing a lot more about supply chain disruptions because they can be triggered by a wide range of events, and they result in higher prices. We've seen this play out frequently over the past few years. In fact, it's one of the primary "complicating" factors that drove recent inflation and the current cycle of rate hikes and cuts.

Inflation and interest rates

When you think about COVID-19, what's the first thing you think of? For economists, the answer is probably shutdowns. Whether it was intentional shutdowns in the U.S., mandatory shutdowns in China, or unintentional shutdowns in areas where the disease spread, COVID-19 disrupted the global economy.

Shutdowns and illness, taken together, led to unprecedented interruptions to the supply chain. If farmers in Brazil couldn't harvest sugarcane, that affects commodity prices, the availability of sugar, and the production of numerous packaged goods from Keebler cookies to canned pasta sauce. It has the potential to drive costs of those goods higher.

While that example is completely hypothetical (I don't pretend to know the extent to which COVID-19 did or did not impact the sugarcane industry in Brazil), there were a number of notable supply chain disruptions and even more noticeable price spikes during the pandemic.

The Federal Reserve looked at many of these price hikes and said they were transitory. In other words, the Fed believed the price jumps were temporary and costs would level off on their own. Only, that didn't happen. COVID-19 affected different areas of the globe in different ways and at different paces. Price increases stuck around, and the Fed may have been able to get a handle on inflation sooner if they had recognized their potential to do so. In other words, some of the trends we're seeing in interest rates in 2024 can be tied back to how supply chains were impacted in 2020.

It's not just COVID-19, though. A port strike has the potential to disrupt multiple elements of the supply chain—if you're making cookies, it could keep sugar from coming in as well as the steel needed to make the milling equipment for the flour. The butterfly effect is more intense than in a small or hyper-local economy.

And in the wake of COVID-19, where we perhaps underestimated that butterfly effect, economists, CEOs, and traders are paying more attention to it now than ever before.

The main takeaway for you, however, is that everything is interconnected now. A war in the Middle East could impact more than oil prices in our new global economy. Understanding these connections (and knowing that we'll never understand all of them) helps us make smarter choices on everything from investments to Halloween candy.*

**High cocoa prices mean chocolate candies cost significantly more in 2024 and you'll save money by handing out non-chocolate treats.*