

# The State of the Supply Chain Squeeze

## Teaser Video Transcript

Dr. David Dreyfus

Chad Martin, CPA, CFE

Kat Jenkins:

Hi, and welcome to Barnes Dennig Ask the Experts. We have a special edition for you today, as manufacturing practice leader Chad Martin is talking with supply chain expert and Rutgers University professor Dr. David Dreyfus on what's happening with supply chain, what's coming next, and what you can do to be ready. David and Chad, thanks for being with us.

Chad Martin:

Thank you, Kat.

Dr. David Dreyfus:

Hi, Kat. Hi, Chad. It's great to be with you.

Chad Martin:

Yeah. Good to be with you as well. Thank you for joining us. A few questions for you today. Most manufacturing companies have been dealing with delivery delays and lack of product availability. Some industries are impacted more significantly than others, especially those whose supply chain involves sourcing products from foreign geographies. Of these companies, tell me how many are experiencing product price increases, in addition to increased freight costs.

Dr. David Dreyfus:

You know, today everybody is experiencing price increases, especially on their freight. I don't think anybody has avoided that unless they're just not shipping as much. But the good news is, as freight costs, compared to what they were last fall, heading into the holiday season are starting to come back down. Have they returned to pre-pandemic levels? No, but they have started to make their way back down. The product increases are a little bit more nuanced there, is that some of the increases different companies are experiencing are being passed on to the customers, and other times are being absorbed within the companies. And so companies are having to make that kind of strategic decision to say, how well do we have to maintain the profits that we're used to, that our investors are used to, versus, how much can we push onto the customers?

Dr. David Dreyfus:

And so there's that tension there between absorbing the costs, and pushing it out to the customers. A lot of that has to do with what their competitor's doing, and the prices increases they are sort of getting away with and the customers allowing. And so I think we have seen a rise in prices, whether it's from COVID or inflation, or just passing on these increased costs from freight or other transactional costs that are increasing. I think it's been pretty much across the board, but we have also seen those industries that have maybe been impacted a bit more by some of the shortages, their costs have increased significantly more.

Dr. David Dreyfus:

And so we think about automobiles, used car markets and new car markets have seen very large increases that have been sustained for some months now. Whereas other industries have spiked temporarily based on shortages in the short term that seem to raise prices because the supply is just not there. But I was looking just the other day, and the long line of ships at the ports has started to dwindle down. And so what does that mean? All that inventory that was sitting out there on the water is getting unloaded. It's finally making it onto the trains and trucks to get it to the distribution warehouses and to the retailers. Unfortunately, demand has started to lessen for a lot of industries. And so a lot of that inventory was there for the holiday market, and it's just now getting delivered at a time when demand is falling. And so we're starting to see a bit of the bullwhip effect, we would call it, show up and wreak havoc on inventory levels.

Dr. David Dreyfus:

So inventory levels are rising. Demand's not quite there to absorb all that extra inventory. And so we're likely to see orders at the factory start to fall again, as we did maybe a couple years ago, when the pandemic started and we were unsure of what demand would look like. And so there's going to be a potentially rough six months ahead of us as demand falls. You pull out those orders from the factories, the factories are going to stop producing as much. And once the inventory dwindles, the orders are going to spike back up again at the factory, and that's classic bullwhip effect behavior. And so that's something that the manufacturers need to be looking for and trying to avoid. Increase your communication with your suppliers and manufacturers, and that's typically the best way to avoid that from happening. But that is what I foresee happening to a lot of industries in the near future.

Chad Martin:

You know, there's been a lot of talk about the semiconductor chip shortage in our country, as those chips go into a lot of different products. And it's been brought to light that some industries are relying on only one or two chip manufacturing plants somewhere in the global landscape. A few companies

have begun to build new chip plants in the US or making plans to do so. How long is the timeframe to get these plants online, to where they begin to make an impact in that chip shortage?

Dr. David Dreyfus:

We've now all heard about chips affecting computers and autos, and really every aspect of life, because we put computer chips everywhere now, from our toys and toothbrushes, to the monitors that we're looking at now. So specifically, the investments we've heard domestically is from Intel, going to build a big factory in Ohio. The timeline on that, though, isn't immediate. It takes years to build these plants, and these are highly specialized plants. And so we're looking at probably three at minimum, four probably, and maybe even five years before it's going to be really up and running. So that 2025 probably wouldn't be unheard of, maybe 2026 before that plant is operational. And now Intel has many other plants, but this is the first time in a long time they've invested domestically with us. So it's awesome. It's a great thing to have that investment, but it's not going to solve our current problems.

Dr. David Dreyfus:

Another example of this would be down in New Orleans. There's a hospital that has essentially created a joint venture with a local manufacturer to produce PPE, personal protection equipment, which is in such short supply during COVID, and they don't want that to happen again. And so here's another industry doing something similar. They're going to build a factory that can produce this. It's going to supply that hospital system, but also other hospital systems in the area, so that when the next disruption happens, they're going to be better prepared. That's the idea there. The implementation of that, though, is going to be a years-long implementation. It's not going to be overnight. So maybe by 2023, they might be up and running for something like that, because it has already started some time last year, but it just takes a great deal of time for those things to happen.

Dr. David Dreyfus:

So, traditionally we have sought in the last 10 years, especially, but even 20 years to rationalize our supplier base, cut it down more and more so that we can drive up volumes, save on cost and run leaner. That has come back to bite us in some instances recently, where we've gotten so lean that we are single sourcing, dual sourcing, some really key components, and they take a long time to find suppliers that can meet quality, on time delivery, and cost expectations for those specialized components. And so it is a really good idea. One of my recommendations would be to find another supplier that's located somewhere else, so that geographically you're spreading your risk around. That can help you in times of need for when the next disruption happens. Is that going to add costs to your inventory potentially, and to your operating costs? It will, but it's a long-term game you're playing to avoid some of the same problems we've had recently.

Dr. David Dreyfus:

And for those manufacturers that maybe cannot make that investment, an alternative would be to become more integrated with your existing supplier base, is to really endear yourself to them. Maybe that's through working on new innovations together, but somehow strengthen that relationship with your existing supplier so that when disruptions do happen, they take care of you. You have that relationship, you want them to know who you are, and so that when you call, they're willing to help. And I think that that can go a long way to avoiding some of the problems we've seen over the last couple years.

Chad Martin:

David, I like that way that you put that, that when disruptions do happen, not if, but when they do happen. And you spoke about that strategy of it being a marathon and endearing yourself to your supplier. What are some other operational or financial strategies that a company might implement now, just to ease that pressure of the supply chain shortage?

Dr. David Dreyfus:

One of the first things that was being thrown out there at the beginning of the pandemic about how to react to some of these disruptions, people were having shortages, was to map out your supply chain. It's a simple exercise, but it's hard to do, and it's even harder to maintain those maps. But training people to do that is such a valuable exercise because it allows people to learn how to think in a process viewpoint. So being able to see everything around you from a process perspective really allows efficiencies to be found, new efficiencies to be found to root out that waste.

Dr. David Dreyfus:

And what it also allows you to do in terms of disruptions is to know where to go and who to contact when things go wrong. And having that written down and doing some scenario planning, some what-if analysis to say, how can we answer questions about it? Okay. If there's an earthquake, if there's a tsunami, if there's another pandemic, who are we going to call? What suppliers can we rely on to really take care of us? And go through that and find out where your weak links are, where your pain points are, and work through those ahead of the next disruption event to ease some of that pain that is going to be experienced.

Dr. David Dreyfus:

And so that, again, upfront will take some energy and some resources, but it'll pay dividends, and it'll pay more than just easing the next disruption. Mapping is always a good exercise. Again, I want to reemphasize strengthening those relationships with your stakeholders and your suppliers and customers so that they know who you are, and want to take care of you. They want to help you. That doesn't always mean you need to be a large customer for them, but you need to be a good customer. And



maybe that's, again, working with them on different projects, bringing some of your expertise to them, or asking for their expertise to come to you, and just really strengthening that bond can go a long way.

Dr. David Dreyfus:

And so those are some simple things that can be done for any industry to help ease the next shortage. Obviously, we can add inventory to the system. We can maybe add suppliers, especially more local suppliers, or if you are sourcing from abroad, or if you are sourcing locally and got hit, you could look for suppliers elsewhere. But I think that the easy solution is to run out and buy a bunch of inventory and say, "Oh, I have this sitting here for the next situation." But long term, that is a liability to have all that money tied up, sitting there in inventory. So I think it's much better option to work with those suppliers, come up with policies and new contracts around their inventory levels, and their responsibility for taking care of you, and get that commitment from them, can really go a long way while limiting your risk of just carrying a whole bunch of inventory.

Kat Jenkins:

Thanks, David and Chad, so much for that great discussion. We're looking forward to taking a deeper dive with Dr. David Dreyfus on February 23rd in the State of the Supply Chain Squeeze Event. So if you haven't signed up for that yet, please visit [BarnesDennig.com](http://BarnesDennig.com). And we'll see you next time on Ask the Experts.