

## Podcast Transcript - US, India Look to Reshape Manufacturing Landscape

**Maurice:** [00:00:16] Hello everyone and welcome back to The Counterpoint Podcast. My name is Maurice and I'll once again be your host for this episode. Today, we have a really cool topic that I would like to discuss with a couple of colleagues of mine. We're going to be talking about some geopolitical issues that are happening across the globe, and how this has been affecting global supply chains and manufacturing in different places. Basically you know, the backdrop here is really how the COVID-19 outbreak in 2020 with lockdowns that were imposed really affected manufacturing for a lot of different countries. And also how this pose challenges for companies who relied on Chinese suppliers to manufacture devices.

So there have been several initiatives that actually happened in two places in India and in the US that are trying to spurn on more manufacturing in those places. And before I get into it, I want to introduce my two colleagues who will be helping me out today in this discussion Matt from the US and Priya from India.

**Matt:** [00:01:04] Hi there, Maurice. Thanks for having us on.

**Maurice:** [00:01:07] Yeah great to have you on. So, to start with Priya, let's talk about India and the manufacturing that's happening there because it is really becoming a bigger hub for manufacturing, not just in Asia, but also now exporting more to other countries. So the, the Indian government Modi's government really introduced this production linked incentive scheme, which is called the PLI for short, can you give us a little bit more context about, you know, what this is and kind of what triggered this?

**Priya:** [00:01:37] Sure Maurice. Thank you for asking me that. I think PLI has been on the talks for quite some time more so now with the entire supply chain landscape being shift from one particular market to India and other countries. PLI came into being much before when it was actually launched in 2020, the Indian government had been working on laying on the foundation that was conducive for a model like PLI to work efficiently and effectively. If you see, especially in these years of 2017 and 2020, the government had introduced a lot of measures and schemes in and around reviving the economy, be it from the perspective of GDP, from the perspective of ease of doing business or even the Forex. Working on these aspects the government made sure that it may position India as a critical supply chain manufacturing hub.

It was clear right when it introduced the policy on electronics back in 2012 two the newer version in 2019 that it needs global investors to invest more. And along with that also encourage the domestic manufacturers to increase production, especially in the manufacturing sector. So, if you look at the government had been working for quite some time in the recent years to enable an environment that is conducive for a scheme, like PLI to function properly. And that's how it came into being of course, working around the Make In India theme and increasing our exports and reducing our import bills.

**Maurice:** [00:03:19] Yeah, that's really interesting. And I've certainly heard a lot that has been happening there, but now tell me is this PLI scheme restricted to any particular sector or does it include multiple sectors that, you know, the Indian government is trying to promote?

**Priya:** [00:03:32] Yes. Initially we wanted to play on our strength and does it was introduced four sectors, primarily three categories, which mobile phones, pharmaceutical drugs, and medical devices, but given the success story that we got to see through mobile phones, the government decided to replicate it and expand it to other sectors, which we call as sunrise sectors, which is nothing but potential sectors of showing opportunities in future. So later on the government expanded the sector to automobiles, PV, solar modules, white goods, and a lot of other things.

**Maurice:** [00:04:12] Interesting. And what are the major companies then that are participating under this scheme.

**Priya:** [00:04:17] We've been lucky to I think we've had some really big global names to talk about, but the big ones we managed to get were Samsung, Foxconn, Wistron, Pegatron and a few others. And of course we have our Indian manufacturers like Lava, Micromax, Optimus working for the domestic investor sector.

**Maurice:** [00:04:40] Yeah, it's really interesting that you know, some of these OEMs have set up shop basically in different locations. Right. And it makes sense because of what happened in China, all the lockdowns and just having kind of all your eggs in one basket, now you're, you're spreading them out. So this, this is a great thing for both OEMs and also just for an on efforts in India. Right.

Awesome. Now turning to Matt. So,, besides the geopolitical issues between the US and China there's also, you know, an ongoing semiconductor shortage that the industry is facing, and we've reported a lot about this already. But now to overcome the situation Congress authorized measures that will contribute towards construction of new fabs. So, increasing semiconductor, R & D funding and doing other things to really promote more US back to manufacturing. Can you kind of tell us, is this kind of similar to the PLI scheme or different?

**Matt:** [00:05:36] Yeah. So, I think there's a couple things that they do share in common. First of all, you know, this is a significant government kind of foray into the economy that really isn't necessarily something that US government tends to do. The US government in the past has not been, or at least over the past couple of decades has not been particularly activist and helping particular industries.

But yeah, this is, this is kind of a change of pace in that regard, specifically referring to the US innovation and competition act, which has passed the Senate, but it's not, yes. Yet become law. It still needs to pass the house, but so in that respect, it is very similar to the PLI they're both pieces of industrial policy.

And this is something that's, that's relatively new or kind of out of the usual in recent kind of American politics. I think another thing that's really worth mentioning is that both of these policies to some degree are reactions to changes, especially in the Chinese economy.

So as China starts pivoting towards attempting to become a real technological power at kind of the cutting edge starting to spend more money on things like AI, obviously Huawei has been a leader in kind of 5G infrastructure that leaves open kind of an opportunity for other countries, especially like India and some Southeast Asian countries to target manufacturing of things like consumer electronics, but for the US, the US sees this pivot in China as yeah. A sort of challenge to the US's kind of technological predominance. And so the US is, is trying to shore up its own technological capabilities by, by investing in things like semiconductors. Just one more quick point is just that yeah, the semiconductor shortage that's going on, which is, you know, partially due to geopolitical tensions, partially to, to COVID-19 and kind of this restriction on, you know, the, the supply of semiconductors is making us policymakers just think like, oh man, what happens?

Yeah. What other risks could be posed to this kind of consolidated supply chain really based in Taiwan, South Korea, if something were to happen to that, our economy is at risk. How do we diversify that supply chain? And so I think that's really, what's kind of behind this policy push in the US.

**Maurice:** [00:07:58] Yeah. So, you know, just adding to that, right. So president Biden issued this executive order to review supply chains for the more critical products that, that exists. Can you kind of tell us a little bit more about what was in this executive order and what's happening there in this review process?

**Matt:** [00:08:15] Yeah, absolutely. So back in February, so pretty early on in Biden's presidency, one of the first kind of executive orders that he issued was a review of four of the United States, kind of, I think, as he referred to it, strategic supply chains or vital supply chains.

So those four supply chains were semiconductors, rare earth elements, pharmaceuticals, and large capacity batteries, especially those used in, you know, electric vehicles. And so all of these, the supply chain review was yeah, sparked by kind of these supply chain interruptions that came from the virus and yeah, the Biden administration was saying, we need to figure out how we can kind of diversify the supply chains, if there's any kind of choke points and ways that we can correct those choke points and everything. So the department of commerce, energy, defense, and health and human services have been working together to investigate those supply chains. And they actually released a report at the end of the a hundred days.

So recently back in June yeah, describing ways that kind of these supply chains can be improved upon. So the big thing for semiconductors, which is kind of, I would say front and center in the executive order and kind of front and center and everybody in the tech industry is mine is that first, the US government can try and do more to be kind of an information broker to try and connect suppliers and purchasers on more even kind of footing in terms of information. So just connecting. Yeah. Just, just trying to serve as a broker between supply and demand. Another thing though, that the report concluded was that the US needs to adapt. The US innovation and competition act, which we'll make

available \$52 billion in subsidies for chip manufacturers in the US and pretty much the logic behind that is just right now, the US and really the global economy is reliant on a couple of chip manufacturers especially at kind of the cutting end, you know, it's TSMC and Samsung Foundry, and they're leading, you know, that production and the issue is it's just so geographically consolidated, you know, it's two countries really producing the lion share of these chips. And the US government is saying, we need to have at least some of these chips coming from other places, because if there was a natural disaster, if there was some sort of emergency this has an outsized impact on the global economy. So, you know, the US government is over the next five years going to divvy up that \$52 billion. We've already seen people or companies rather ready to take up those funds. TSMC is actually preparing. They recently broke ground on a new fab in Arizona.

Intel is planning to construct two fabs also in Arizona costing about \$20 billion and the US government once the US innovation and competition act has passed will be ready to yeah. Supply some subsidies to those index.

**Maurice:** [00:11:21] Yeah, there've been some really strong moves, I think, or rather strong boost by the companies to re you know, react to this and I think also Samsung is building a fi Foundry as well in Austin, Texas. So, a lot of the big semiconductor companies are really trying to expand in the US so before moving to my last question here, I wanted to ask you something related to, again, the component shortages that we just talked about with Matt and I wanted to get your assessment on if they've impacted the PLI or its participants.

**Priya:** [00:11:52] Yeah, definitely. Considering that semiconductor components goes into manufacturing of any type of electronics. We did experience a crunch. You did experience a pinch so much so that someone like as big as Foxconn and Samsung even they were in a position to reduce their production and contract their sales due to the shortage of components. It is probably by because the industry faced such an acute pinch that'd be industry requested the government if you most recently, to extend the timeline and duration for the PLI.

So most recently the government the industry needs, which is that they have actually extended. The timeline meant for be alive till 2025-2026. And this comes as a welcoming step because it relieves the manufacturers and the production of meeting a particular target. Given that the supply chains was so constrained, especially in the school with diet.

And just to add to that most, I think most importantly, the one feature that was making manufacturing difficult under PLI was the fact that due to the constraint that happened, manufacturers were unable to meet both their investment and production targets, which effectively the various sense of PLI because they have a target to chase. They have an investment to make. So, the shortage of components was definitely felt by the manufacturer.

**Maurice:** [00:13:26] Yeah. Interesting. And I wanted to ask one more question here. It's, it's related to also, you know, what, what can potentially happen coming up now with the potential third wave of COVID coming to India, you know, I know that only India has about let's say less than 5% of the population is fully vaccinated and just over 20% have received

their first dose what can you w what can, what is there to be expected for these challenges that are coming up for PLI and just the country?

**Priya:** [00:13:57] Then if, if we see by our records, the Indian economy has managed to recover well from this COVID pandemic, our recovery. If you follow has been a V-shaped recovery, however, the industry, you know, with all the initiatives, by the government, with all the measures, For vaccination, the industry in general feuds a bit optimistic.

We believe that the third wave of COVID-19 will not be as severe as it had been earlier. And now the manufacturers are well aligned with the lockdown situation happening in the country and also overseas for that matter, they feel they are well equipped, but of course I think the, the initial challenge was definitely the fact actually moving the entire supply chain from, you know, one single market to India which was an initial hurdle and a big one. And we've managed to work on that and we've managed to come out well in that case what lies ahead? What could both prove to be a success. And yet the constraint would be to really see how sufficient we managed to generate demand, whether or not consumers, whether or not manufacturers will be able to meet their annual targets, their annual investment and production targets given the many lockdown situations, given the.

You know, everything is promoting, being worked upon. I think that could be the trigger. And if that goes well, it could be a really good news for the industry in that case. I think I just want to add one thing here is that what we can expect is the industry does not wish to face circumstances where they are posed with the question of, you know, what am I, and who am I even producing for?

You know, questions like from the consumer side, which we really feel scared that would happen in the next few quarter of the financial year is that people should not confine themselves from consumerism and consumeristic attitude of whether or not. Yes. Empty my pocket and I was in a time of crisis.

So that really depends something on the consumer side of things and not on the manufacturer side. So, if everything goes well and the third wave of COVID 19 happens to be as we expect I think we have a good time, a good opportunity to work on this very sentiment where the global economy considers India as a potential hub for manufacturing.

**Maurice:** [00:16:37] Those are some great insights, I think for the Indian market in particular, what will happen in the future. , thanks for you. And before we conclude, I have one last question for Matt. So, you know, the U S Senate recently passed the United States innovation and competition act of 2021. Can you briefly explain what that is and how it would help the US and its ambitions to reach self-sufficiency.

**Matt:** [00:17:02] Yeah. So the US Innovation and Competition Act is kind of in amalgamation or it it's got actually several aspects to it. And kind of the most probably of interest to us is this thing called the chips act or the endless frontier act, which yeah, it makes available up to \$52 billion in subsidies for a semiconductor manufacturers.

And as we talked about a bit earlier, this is already kind of having an impact on yeah, manufacturers deciding to choose the United States as a destination to, to manufacture.

And, and I think that that is making the, the future of the semiconductor manufacturing industry yeah, more robust and then it's going to be more resilient to yeah natural disasters or shocks or any, any sort of. Risk to the supply chain. Something else that the US Innovation and Competition Act does is it's going to help create a, it's going to expand the national science foundation to be the national science and technology foundation. And it's going to make billions of dollars available for developing what it's calling kind of these tech hubs all around the United States. And what that's really meant to be is kind of a, a link between kind of like laboratories at universities and the, the US economy, the market. And so these tech hubs are supposed to try and take innovations that occur in the lab and yeah, commercialize them bring them to market.

And I think that. Could also really help. Yes. Spur innovation, lead to kind of new breakthroughs and also help us, especially startups kind of find new ways to employ new technologies and ways that, that we aren't exactly sure how that will pan out, but especially focusing on things like machine learning, AI and so on. So I think that this really is a pivotal piece of legislation to the, the future of the US economy. And it is very likely to pass the house of representatives. And I think it will become law here probably in the next next month or so.

**Maurice:** [00:19:11] Interesting. Yeah, well you know, I guess we'll wait and see on that, but I think both of y'all had some really good points on the global, you know, geopolitical situation that's happening and really how these dynamics are affecting both India and US manufacturing. So, I want to thank you all, both for being on great talk and I hope that you know, we can have a up on this and see where things. Thanks all for joining.

**Matt:** [00:19:35] Absolutely. Thank you for having us.

**Priya:** [00:19:38] It's been a pleasure. Thanks.

**Maurice:** [00:19:40] Great. And thanks listeners for joining us on this podcast. Once again you can find us on the counterpoint to websites and also we're available on apple podcasts, Spotify tune in and Google podcast. Thanks again for joining us and see you all next time.