THE BROOKINGS INSTITUTION

WEBINAR

IMPROVING GLOBAL SUPPLY CHAINS

Washington, D.C.

Thursday, July 14, 2022

PARTICIPANTS:

Opening Remarks:

JOHN HAZEN WHITE
President and CEO
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Panel 1: Supply Chain Challenges

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Vice President and Director, Governance Studies
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Executive Vice President
Taco Comfort Solutions

Panel 2: Ways to Improve the Situation

DARRELL WEST, Moderator
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Rep. DAVID CICILLINE (D-R.I.)
Member
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P R O C E E D I N G S

MR. WHITE: Good morning, everybody. My name is John Hazen White, and I want to welcome everybody. It's so great to be able to be back in person and there's also a large number of people watching virtually so thank you for taking the time out of your day.

Darrell West and I put our heads together on this manufacturing activity years ago. This is the 11th forum of its type, the 11th year. And the purpose was to sort of think about manufacturing and where it stood in America. Would it come back at some point the way we knew it historically? Such a valuable of the American society, dream, development of building of wealth for everybody. And so, we wanted to begin to explore that, and we have over the years.

As I think about it though as I was kind of thinking about this now or yesterday also. You know, over time there became sort of an attitude that the United States had acquiesced its manufacturing position to other countries for cost reasons and et cetera. And we were becoming more of a service-oriented country. And I really never bought into that, but I think I can stand here and say that if there ever was a time to think about manufacturing in America and the value of it, it's now.

The value of the investment in manufacturing is proven in the last two and a half years because as I think about it, you know, I talk about the frontline workers and the hospital workers and the police, fire, et cetera. EMTs as heroes. I also consider from the bottom of my heart the people that have built things for the last two and a half years. They've gotten out of bed every day and gone to work and put their lives on the line, have achieved the status of heroes.

They are wonderful and they have – and manufacturing has come to the front to really, in my opinion, help save this country through this pandemic because we've continued to produce and to supply the needs for all of us to live. So, this is a great opportunity, Darrell, to continue that dialogue and that sort of thought process.

And I'm so glad that so many people want to be a part of that. So, thank you for coming and I hope this is a valuable day. And it's great to be here with my family and Liz and Ben. And John can't be here until later but these two wonderful little babies. This is the fifth generation of this company. And they're all letting us know that and they continue to. They're very special.

So anyway. So, I love them so much. But anyway, it's just great to be here and to share with all of you. And Cheryl Merchant is my CEO of my company. And I have such good friends here. Thank you for taking part. Have a wonderful morning.

MR. WEST: Okay. Thank you, Johnnie. And thank you the fifth generation of the White family who is joining us today. That is certainly a historic moment, so I do want to thank Johnnie and Liz, their sons, John and Ben, and the extended families for your generous support of this forum as well as our Global Manufacturing Initiative which has been going on at Brookings for a number of years.

Johnnie is a trustee. And we appreciate all that he has done to support our independent work at the Institution. We're very grateful for your help. It is hard to believe this is the 11th annual John Hazen White forum. But it has been an amazing series over the years.

For those of you who don't know me. I'm Darrell West, Vice President of Governance Studies here at Brookings. I would like to welcome you this event. We are webcasting the event live, so we appreciate all the people from around the country and around the world who are tuning in.

We also are going to be archiving this video on the Brookings' YouTube channel. So, anybody who wants to tune in later will have an opportunity to do so that. And we've set up a Twitter feed at #SupplyChain so if you would like to post any comments or questions during the event please do so.

So as Johnnie mentioned for more than a decade, we have explored different aspects of manufacturing both in the United States as well as around the world. We've looked at the manufacturing renaissances and what has helped to bring that sector back. We've looked at various problems facing our manufacturing and ways to overcome that. And we've examined what Presidents Obama, Trump and Biden have done to encourage innovation and create jobs in this area.

Today we're going to look specifically at the issue of global supply chains, which we all know is an enormous set of problems. It's on the front page virtually every day now. There are many challenges. At Brookings, we actually published a paper this week entitled "Six Ways to Improve Global Supply Chains" that is free and available online at brookings.edu.

And in it we focus on issues related to production, distribution, logistics, competition policy and geopolitics, all of which are part of the supply chain issues. We make a number of recommendations in terms of bringing critical mission jobs back to the United States or nearby allies just to help avoid the complicated geopolitics that has arisen in China, Europe, India and elsewhere.

We talk about steps to improve logistics in terms of shipping and cargo transportation in particular. The need to prioritize public health especially as we hopefully coming out of the pandemic, so the companies have the workers they need to make and distribute out products. Manage the labor shortages, which many companies are experiencing now that we have a 3.6 percent national unemployment rate. And then fighting anticompetitive practices that have arisen in many sectors.

To help us think about these issues, we have three distinguished experts, the Honorable David Cicilline is a congressman from Rhode Island. He was elected to Congress in 2010 and there he works on issues related to manufacturing, workforce development and competition policy among other issues.

He has introduced the Make it America legislation to retrain American workers and other bills to protect consumers and encourage greater competition in the marketplace. But most importantly, he is the author of a forthcoming book. I think it's entitled "House on Fire" that is out at the end of August. And I am told by the author, of course, that it is a great read and I encourage all of you to preorder at your favorite bookstore.

And I should mention he has to leave around 9:30 to get back to a judiciary committee of business on Capitol Hills. So, if he leaves suddenly, it's not something that I or the other panel has said.

David Dollar is a senior fellow in the Global Economy and Development program at Brookings. He has written extensively on trade, supply chains and international affairs. In addition to his writing, he hosts a very popular Brookings' website called Dollar and Cents which I recommend highly to you. It's a really good conversation with him and the varies guests that he has on.

And then Leslie Taito is executive vice president of business operations at Taco Comfort Solutions. In that position she handles production, logistics and distribution. And therefore, has extensive experience on supply chain issues. So, Leslie, I'm going to start with you.

First of all, welcome to Brookings and I know you were on the front lines of the supply chain issues. So, what problems have you encountered? And what do you find to be the most serious roadblocks?

MS. TAITO: Well, there are several challenges right now in the supply chain. I guess probably the biggest challenge that we're facing is making sure that we're getting materials that we need to make our products on time and to meet our customer expectations.

We're finding massive delays about getting product delivered on time is taking three to six months longer sometimes. We're finding that our suppliers are having raw material challenges so they're not finding component parts to incorporate into our parts. There are substantial increases in the cost of those raw materials so we're trying to mitigate those costs. It’s not so easy just to pass that along to your customer.

We're finding components that at one time would cost us 53 cents can now be on the market for $50. So, we're having to source from different places. We're finding huge increases in transportation. Our transportation is up about 137 percent. So, on top of all of that we're trying to incorporate that in and still trying to find workers who want to take those jobs. We're fortunate at Taco that we have the – I would say – one of the best workforces in the world.

They're dedicated. They’ve been there throughout the duration. But now that we're starting to have people who find other opportunities or are looking at retirement. Trying to get folks into make the products. All of those compound, right? And then you have to make sure that you're holding enough inventory so that when the orders come in and we have orders. We have a backlog of orders. We're holding additional inventory just in case, right?

So that’s adding the financial cost of doing business right now. We're doing a really great job, I think of seeing our way through, but it’s a different challenge every day. I think one of the bigger challenges too in the supply chain is it’s a – I call it Whac-A-Mole. I can find this component today and think it’s readily available for the next order and then now that component is not available. And when I can find that now another component is not available.

So, there’s a bit of that Whac-A-Mole that’s happening that we're trying to, you know, we do it every day. We're trying to make sure that we can still satisfy our customer demand.

MR. WEST: So, to summarize, basically, almost everything is a problem it sounds like and very expensive.

MS. TAITO: Well, let’s put it this way. When this all started, my hair was brown, you know. It’s just a little bit of a challenge, but we're good.

MR. WEST: That’s like the line I used to use before I came to D.C. and dealt with all the humidity. My hair was straight.

David, so you have extensively on manufacturing over the years both in you were a mayor providence and then now as a member of Congress. What are you doing to address some of these supply chain problems? And what do you think we should be doing?

MR. CICILLINE: Well, thank you again for inviting me to be part of this panel. And it's great to see the wonderful White family. And I think Johnnie's comments are really important to start with.

And I think this moment in particular is a moment to sort of underscore what we've been talking about for a long time about the importance of American manufacturing. And I think the supply chain issues that are present today are a reminder of what makes a difference that we make things here in America. That we invest in research and innovation so that we can continue to develop new products and services and that we have a competitive market because competition is the single greatest driver of innovation. And we want to out innovate our competitors around the world.

So, this is a moment of tremendous challenge and incredible urgency, but I think also a lot of opportunities. So, I think one of the things that you, Professor West, brilliantly wrote about in the Brookings' piece you just released is, you know, some of this is obviously a direct consequence of a once in a generation pandemic.

Just the terrible disruption of our economy. And so, you know, Congress has been very focused on doing all we can to defeat this pandemic and get through this public health crisis because otherwise this is going to be a recurring problem so that's really important.

The second thing is we have to, I think, and we have done this in a number of different ways, continue to create more opportunities for American manufacturing. Making certain that in sectors where we don't have manufacturing that we devote resources to develop those parts of our economy. So, we have more and more things made in this country. So, we have less reliance on transporting things from other places particularly in the complicated geopolitical world we currently live in.

And so, I think that – but I think most importantly for the supply chain issues is we basically didn't have a very sophisticated way of monitoring, protecting and building supply chain resiliency. We sort of relied on the marketplace to do it. And I think we didn't have until the Competes Act even a plan to create an office within the Department of Commerce to really focus on supply chain resiliency. And to be sure that we have a monitoring system, so we're alerted when there are going to be challenges to some critical parts of the supply chain.

So, the Competes Act which we passed in the House, the Senate passed a different version. The House version is much better, obviously. But it invests $52 billion to create the chips for America Fund to really help ensure that we can make more semiconductors here in the United States which is absolutely critical not only to our economic future, but to the national security of our country.

It also makes tremendous investments in scientific research and innovation. It authorizes $45 billion to strengthen supply chains and prevent shortages of critical materials. And also, expands our investments in development and diplomacy international to help try to bring stability to the world so we have less adversaries that are involved in the critical things that we need in our supply chain.

So, I think the Competes Act will be the biggest most important thing we can do to address the issue of supply chain. The House version passed. The Senate version passed. They're now in conference even today as we speak trying to finalize this. But we've got to get that done because I think that's going to do the most to address the current issues in this budget.

MR. WEST: So, David Dollar, I know you have written extensively about supply chain issues, workforce issues. And also, some of the complications of onshoring, possibly bringing jobs back to the United States. So, what are the things that concern you the most in this area?

MR. DOLLAR: Well, let me start by saying it's a great pleasure to be here and to join this panel.

And I want to start on a positive nod to your report, Darrell. I encourage everyone to read it. It's got a lot of good recommendations and listening and reading your report and listening to Leslie. The main area of overlap there, I think is really around the whole issue of logistics. You know, a lot of what Leslie was just talking about was different failures in logistics within the United States, frankly.

You know, ports, trucking, rail and then, of course, lots of other countries around the world have had problems with logistics. So, I think that is a scenario where the government is already heavily involved as a regulator and it's realistic to expect that we can have much better functioning.

But then, Darrell, and the issue of, you know, onshoring, reshoring. I think we need to be pretty careful. I totally agree with the Congressman that there's going to be some production with national security implications, high-end semiconductors are a good example where we want to make sure production occurs in the U.S.

But on the other hand, if we try to do that across the board for manufacturing, I think that's going to end up being extremely expensive. You know, we actually have a very successful vibrant manufacturing sector. And it's got deep ties with countries all around the world. And if we try to artificially bring production back to the United States that's probably going to be costly and unsuccessful.

Remember we have very low unemployment and high inflation, so we want to do a lot more of something. If we want to do a lot more manufacturing then we're basically saying, we want to do less of something else. You know, we want to have less education or less healthcare. Because, you know, the key thing I want to add to the discussion is there's no free lunch, okay?

So, among the different recommendations, I thought the ones on logistics were realistic and would potentially have a very significant impact on how our existing manufacturing base is operating and make it more successful and expanding.

Last thing is I totally agree with the Congressman about research and development. You know, we are at the high end of manufacturing, and we want to maintain that with a very strong research base. And I think that's a good use of public resources.

MR. WEST: So, Leslie, continue on this theme of logistics which we all know is a big problem. And I'm sure it's an issue facing your company as well.

How big of a problem is that? And how are you handling that? And are there things that either government and/or businesses should be doing to ease problems in that area?

MS. TAITO: So, it's a case-by-case, day-by-day, right? So, we're trying to figure out do you say, okay. If I'm bringing it over from overseas, do I want it on a boat? Can I afford the time on the boat? And if I need it immediately, do I go to an air freight?

If I air freight, it's going to cost me three to four times what it's going to cost in a normal circumstance. We've been very diligently trying to nearshore, onshore, if you will. And look for other opportunities for suppliers who can supply to us. We're finding in many instances that it's four to five times what we're paying, but we're looking at those differentials and we're saying, does that make sense for us from a business standpoint?

I think and I'm going to jump back just for a moment and incorporate the semiconductor conversation back into this. You know, those semiconductors are very important to what we do. We are heating homes. So, there's nine million boilers in the U.S. So, Taco Comfort Solution products are heating about 7.6 million homes in the U.S. That's heat. It's hot outside today but it's going to be cold in a few months.

What's going to happen with those chip allocations when we have automotive manufacturing is going to come online very soon. So, we're trying to – and I can tie the logistics back into this. We're trying to source everywhere we can, looking for alternative sources. But we're going to have to start making some key decisions about where those microprocessors and those chips are allocated to. Because do we heat a home?

We need cars, right? Everyone needs a car. So, there are going to be some bigger discussions that are going to get incorporated into this conversation because we're talking about health and safety. So, I think all of those things – I know, I believe that the Secretary of Commerce is having a conversation today about microprocessors and chips and trying to figure out what that looks like.

But those were all critically important issues to all of us at the end of the day. And especially a company like Taco who is very dependent on that for many of our products. But how is that going to get allocated? And the fact that many of those suppliers are offshore. We're going to have to figure out how to do that and it's not going to be – I understand the research and development and the ability to want to build that back into our supply chain. But there's going to be gap in timing. And so, we're going to have to have real conversations about what happens in that gap period.

MR. WEST: So, Congressman, I know for the past few years, you've spent a lot of time working on competition in the marketplace. And your committee is actually has already passed several bills to address these issues.

How big are these competition -- or I guess we should say lack of competition issues in a number of sectors contributing to supply chain problems?

MR. CICILLINE: Well, I think enormously. I mean if you look at the concentration that has occurred in almost every sector of our economy over the last decade. It has been extraordinary. And when you have the kind of concentration that the absence of competition produces, you end up with less choice, less quality, higher prices and less innovation. All which are deadly for a supply chain and for manufacturing.

And so, this is a challenge because we have a lot of evidence to show that we need more competition. And we need less anticompetitive behavior. But to be very candid, we've had a kind of failure for several decades in this country to really have robust antitrust enforcement in both Republican and Democratic administrations.

I think we now have probably the most procompetitive President we have ever had. The President issued an executive order really focused on the importance of competition to drive innovation and to drive the economy. He has people like Lina Khan at the FTC. Jonathan Kanter at the Department of Justice. Tim Wu is National Economic Advisor. So, he has kind of the real stars of competition policy in his administration.

And so, I think this is a real opportunity to be sure that we're doing everything we can to promote competition that is going to be not only beneficial to the economy in long term and to manufacturing. But really help to address supply issue problems because when you only have one or two companies that do something. If there's a failure in their ability to execute that's the end of the supply chain. I mean it stops there.

So have a, you know, diverse supply chain with lots of opportunities and lots of actors is obviously one way to have a resilient supply chain. And we've allowed so many areas of our economy, including in logistics, to become more and more concentrated by fewer and fewer actors. That's a real problem.

MR. WEST: And it seems like that actually was a big problem in the recent baby formula issues. Like there were four companies that basically make most of the baby formula here. When one of them shutdown due to health and safety concerns. It disrupted the whole thing and probably created problems for even the fifth generation of the White family that is here today.

David Dollar, I know China looms large in supply chain issues since so many goods and/or components are made there. And of course, we now have very complicated relations there just based on trade. Russia, Ukraine and national security in general. How can we handle the China relationship in a way that helps to mitigate some of these supply chain barriers?

MR. DOLLAR: Well, China is a difficult case definitely. It's actually the largest producer of manufacturing value added in the world by a pretty large margin.

Yeah, we actually have a pretty deep trade relationship despite the trade war and the tariffs. It's a pretty high level of integration between China and the United States. And I think perhaps more relevant is there's a very high level of integration between China on the one hand and South Korea, Japan, Germany, you know, our key partners are all really deeply integrated.

So, I think the administration, the Biden administration, they've been clear that they don't want to see decoupling from China. You know, which would be very costly for both economies, frankly. And I think importantly, I don't see that our partners would follow us down the road. You know, this relationship is much more important to those partners I mentioned. So, I don't see them following us down a road of decoupling from China.

So, the challenge then is to create guardrails. You know, what we're doing with our policies. We've got export controls on sensitive technologies. We've got various investment controls that also address sensitive technologies. And I think it's a hard thing to implement, but I believe that that's the right policy. It's what former Treasury Secretary Hank Paulson called you want to have a small yard with a high fence.

So, you want to define a pretty small number of technologies where we don't want to have this deep integration with China, and we want to have a high fence, basically. We want to make sure that our export and investment controls work.

And it's difficult politically because you're going to have special interests you want to be included in the yard. You know, because they want to get some protection from China. And if it's not really a national security issue then, frankly, it's just cutting down on competition and it's going to raise costs for American firms.

You know, I think it's interesting. There's been enough time now. We've got some good research. These tariffs that President Trump introduced on China actually reduced manufacturing employment in the United States because while it protected a few very specific sectors. A lot of what we import from China would be parts and components. And when you start taxing those then you're making American companies less competitive and then the net result has been actually fewer manufacturing jobs than there would have been otherwise.

Not huge changes, you know, because frankly trade policy is not really a good instrument. If you want more manufacturing jobs, you know, trade policy is not a particularly good instrument for that. So, I guess without being too long winded, I would focus a lot of that trade and investment policy on the national security issues very clearly, you know.

And then otherwise, we should leave it up to businesses to make decisions. There are risks and problems operating China. American businesses know that. And we know from the day they make a huge amount of profit there because this is the fastest growing market in the world. You know, I guess that's the last point I would make, Darrell, is American companies at this point are mostly in China to sell to China.

So, some of the discussion, you know, just doesn't seem to accept that reality that our companies – take electric vehicles for example. Our companies earn a lot of profit there. That finances their R&D and that keeps them at the forefront of their technology. If we decided arbitrarily, we don't want American companies investing in China in any sector then you're cutting out a big profit opportunity and it's going to end up resulting in less research and development and less competitiveness.

So, it's a challenge to define that yard that I'm talking about, but I think that's the right policy.

MR. WEST: Okay. And, Congressman Cicilline, I know that you have to take off, but I thank you very much for taking the time, and we appreciate hearing your comments.

Well, mostly I want to come back to this issue of made in America because on the one hand, many Americans support that idea. They like jobs coming back to this country. But on the other hand, we also know that bringing jobs back to America is expensive.

The labor force is expensive. The energy costs are expensive, et cetera. So how do we balance these things? Like bringing jobs back to the United States but then dealing with what will inevitably be higher production costs?

MS. TAITO: So, I think there's a delicate balance, right, that we all have to play. I think part of – there's a lot of good things that I like about made in America. But I think that the – it kind of prohibits and I think overlooks sometimes the fact that we will still have American based jobs that are doing the assembly side of that.

So though, I can't source 100 percent of those components in America. If I bring components in, we can still allow for American jobs to add value to that. So, I think there's a delicate balance, right? Part of the challenge is everybody wants that discount brand, right? I want to pay discount dollars.

Sometimes, when we make it in America, we're going to have to charge more in pricing. And the unconsumer doesn't always want to pay the additional cost. So, we're going to have to figure out how do we rectify that? How do we put a value-add product into the marketplace that we can strategically position and say that this is worth the additional dollar investment?

Then a lot of Americans don't want to pay anymore. They like the Walmart idea. Not to use them specifically. But they like I can go get a discount brand. I can get it cheap, and we can make it kind of in a throw away fashion. Some of the products we're not making, they are investments. So, I think we're going to have to figure out the strategies to make that work.

We're all about investing in the American worker, but we also know that we have to play in a global economy. It forces us to do so to remain competitive and to keep those capabilities here in the U.S. We want to make products and services, but the way things have gone for the last several decades. And businesses have gone overseas. We're forced to play in a global marketplace. We don't have any choice but to do that if we're going remain competitive and we're going to have products and services that our consumers are willing to pay a fair price for.

So, there's a delicate balance of how we do that. It's not an all or nothing. It's not a net sum game. I think there is a way that we can strategically do that, but it warrants the bigger conversation then saying 100 percent made and sourced in America.

MR. WEST: Okay. David, I have one more question for you then we're going to open the floor to questions from the audience. And we're also getting some online questions from our people watching over the webcast.

So, the computer chip area has been a big challenge for virtually every sector because chips are in everything. Manufacturing, automotives, et cetera, et cetera. And we know that, you know, much of the current computer chip production capability is center on Taiwan and South Korea.

Congress is slowly starting to put some money into kind of bring some of that capacity back to the United States. But given the importance of the computer chip sector to supply chains in particular. Are there special things that we need to be doing in that area?

MR. DOLLAR: Well, in my view, you know, the focus of policies should really be at the very high end and particularly the chips that have, you know, military applications, security application.

And I think that, yeah, as you say, Darrell, for the moment it's really only Taiwanese and Korean and I think perhaps one Japanese firm, plus, of course, American firms. We've got several firms that produce at the high end. And we've got the Compete Act has $52 billion in subsidies. I think if that's well targeted, you know, then that's money well spent.

But, you know, semiconductors are a vast area. There's a low end of things that go in, you know, all kinds of simple electronics. China is a big producer at the low end. You know, I think if we take a kind of protectionist approach that we want all the semiconductors used in America to be made in America, you know, that's going to be extremely expensive. And then plus the high-end countries I already mentioned, Japan and South Korea, those are formal allies. Taiwan is a friend.

So, I also think we want to think hard about do we want to start shaping policy that essentially, you know, undercuts some of our key allies in the Asian Pacific? It's not like we're buying high-end semiconductors from China. And I think we'll probably continue to have a cautious policy in that area. So, you know, it is such a vast area. And the shortage, particularly the shortage for automobiles caught a lot of people's attention. But that was primarily – I would love to hear Leslie's view in this. My sense is that was primarily just a business mistake.

You know, auto companies including American auto companies misjudged the situation. They thought demand was going down. They cut back their orders. The semiconductor companies, they made orders with electronic firms because electronics demand was going up. And then the auto companies discovered they were short. But they made a bad business decision.

Suppose all the semiconductors were made in the U.S. There would have been the same mess, right? Because those semiconductor companies, they all have contracts. You know, they make contracts with, say, Japanese electronic firms. They weren't going to abrogate those contracts in order to deliver semiconductors to American auto companies. If it were a genuine national security issue, sure. But just because of a bad business decision, you know, I think – I don't see how we could have bailed them out of that.

So, you know, some of this is really just a matter of business decisions and, you know, we should be very careful about what we're subsidizing with public money.

MR. WEST: Okay. Leslie, I see you reacting to that. So, I want to hear your reaction then we're going to take questions from the audience. Go ahead.

MS. TAITO: Sure. I don't know if I necessarily agree with that. I think part of what happened – I don't know if they were bad business decisions. I think part of what happened is COVID, right?

You had factories that were shutting down. They were taking their workers out. They were having to segregate them. They were having to keep people at home. And I think those disruptions in those supply chains started putting less product into the marketplace. And then you had everyone clamoring because they weren't getting their standard supply chain.

Maybe there were some misjudgments, and I can't speak for the automotive industry. I can talk about from our industry. We had forecasted extremely well. We knew exactly what we wanted and then when they started pulling additional demand and started saying, no, we're going to stop. We're going to give you an allocation, which was 50 percent less than what we had forecasted with them. That's not a business decision. That's a supply decision. That was the supply chain dictating to us what we were going to get and have the ability to produce product with.

So, I would challenge a little bit there what came first? Chicken or the egg? I know that at the end of the day, we ended up trying to source and redesign board on the fly so that we could make our products and figure out a way around it. And I think again, thank God for the Taco team and the innovation and ingenuity there. But they figured some of that out. But we're still have lags in our supply chain specifically around those microprocessors because they're critical to what we do now.

It's the newest technology. It allows for the highest efficiency pumps that we can put in the marketplace. And we need them. And we still don't have that supply is not set. And I don't see that supply getting set for the next couple of years, quite honestly. I don't know if it will reset within that time period.

MR. WEST: Okay. We're going to take some questions from you here who are in person. We also have some questions from our online audience. But we'll give you the opportunity first. If you have a question raise your hand. We have people with microphones who can come to you. What's your question back there?

And if you can just introduce yourself, give us your name and if you're with a particular organization?

MR. CARDICANE: Hi. First of all, thank you for putting this event on. It's been a wonderful time. I'm Ivad Cardicane (phonetic) rising sophomore at Yale and currently in the United States Western Group.

My question is related kind of the whole retirement and age issue kind of going on in the supply chain. You know, around the average age a machine is in the supply chain is around 55- to 60-year-olds. And they have such integrate knowledge about small parts and these small, highly critical parts in the supply chain.

What do you go about replacing this integrate knowledge? And how do you solve the kind of labor constraints and labor shortages that are caused by kind of the retirement and age issues that we see on the supply chain?

MS. TAITO: I can speak to that one a little bit. So, what we're doing right now is we're trying to partner up, right? We know folks who are hitting towards that retirement age, trying to partner them with other individuals so that we can have a knowledge transfer.

When they leave that institutional knowledge walks out the door with them. So, I think we're trying to do a really good job of making sure that we're partnering those so that we can keep some of that institutional knowledge.

I think part of what some of the career and tech programs you're seeing now. They're coming out with new programs is that they are trying to partner some of these – well, I don't want to call them older folks because I have this color hair. Seasoned. We're seasoned now. Trying to take some of our more seasoned individuals and really pairing them up with some of the younger folks or your early career folks who are just starting out.

There is still a gap, right? And there are not many people who want to go into the – to be a machinist, to be a tool maker. And so, we're trying very hard to make sure that we can show that that's a great job. You can raise a family on it. You're going to earn a really great wage. And that there's a career path for you there. And I think if you look at some of the people who work for our company who have been there for 25, 30 years. It proves out the fact that it's a good career and it's a good way to raise your family.

But it's making sure that that younger generation can know and understand what those careers mean and their ability to give into them and get those skill sets so that they can enjoy that career path as they get into the workforce. It's a challenge though. There's no doubt.

MR. WEST: Okay. There's a person right there who has a question. And get up and if you can just introduce yourself.

MR. DYE: Hi. Thank you for being here. My name is David Dye. I'm a student currently at Grinnell College in Grinnell, Iowa. My research focus has a lot to do with competition, antitrust, things like that.

So, you mentioned about Compete Act about having a subsidy for, say, semiconductor companies. But what I'm seeing here is really a problem, you know, between the barrier of entry, intellectual property and also the basic anticompetitive behaviors.

So, I wonder how can we solve the supply chain problem by reducing the barrier of entry by re-subsidizing smaller firms of research and development and all those? How to breakdown this barrier of entry to have smaller producers here in the U.S. actually produce and to compete in the international stage?

MR. DOLLAR: Well, too bad we don't have the Congressman here because I think he's really an expert on this. So, I would put out there.

So first one of the reasons why I'm one of the last remaining enthusiasts for free trade is that that's one of the best – that's the best competition policy you can have. Because you've got firms all over the world, you know. Even the semiconductors we discussed were initially probably five major firms. You know, five is enough to generate a significant amount of competition.

And then if you don't have free trade, you're very unlikely any one country is going to have more than one or two big semiconductor companies. So, then you've clearly got, you know, a monopolistic situation.

And then we have these very careful, you know, competition policy laws, the antitrust laws and the Congressman expressed a view that for decades we haven't really seriously enforced them. And I'm not an expert in this area but that resonates with me that we've seen an awful lot of mergers, you know, into larger and larger entities.

And the quality of all kinds of services goes down and certain prices go up. So, I think enforcing our competition law, taking a hard look at does it need to be updated because of changes of in the modern world? And then most importantly, we should remain open to foreign trade.

MR. WEST: Other questions from our audience? There is microphone coming up from behind you.

MR. CHURCHILL: Thank you. I'm Eric Churchill. I'm with UPS for global shipping and logistics company. David, you mentioned some of the domestic challenges we have in logistics. And I just wanted to see if you could go a little bit deeper into some of those?

And in particular given the political constraints. You know, we have worker negotiations going on in rails and at the ports right now. You know, investment can be challenging and very long to complete. You know, some modernization projects and ports, et cetera. I just wanted to see kind of how you think about we could break some of those political constraints in order to improve our logistics and lower costs and get products moving faster? Thank you.

MR. DOLLAR: Right. So, I don't have any easy ideas on this very important question. And, Darrell, you may want to weigh on this too because you've got interesting labor market ideas.

But one thing I bring to this conversation is I get to work on a lot of different countries. And it seems to me the United States, you know, we have an expectation that employers will provide, you know, benefits and pay and all kinds of things. And on the other hand, we don't have a lot of public services, frankly. You know, we don't have universal pre-K to take care of children, for example.

Our social security program is running out of money. You know, Medicare has got lots of – I'm old enough now to tell you Medicare has got lots of holes. You know, so I as an American citizen, I would favor that we do a lot more in terms of essentially public support for the various components that make up good jobs and good wages and not put all of that on the companies. So, of course, you know, some of that we have to put on the companies.

MR. WEST: And I would just add one quick footnote to that just from my workforce development and job retraining. Like clearly, we're in an era where there is just lots of changes effecting the workforce. Technology changes and just changes in business models and so on.

And so, as a country we need to take job retraining more serious than we do. There are a number of companies that are basically doing it on their own and I applaud those companies. But, you know, we need state and local government to be more active in this area. We actually spend quite bit of public money in this area, but we don't seem to be getting very good results. Like the people that come out of these programs often have difficulty finding jobs.

So somehow, we need to target the job training more effectively so that people come out of those programs with skills that employers actually require.

MR. DOLLAR: There are a couple of countries that do this well. Germany, South Korea, you know, and the key seems to be that the companies have to have a key role in defining the – or designing the training because they know what the needs are.

You know, and then you need a little bit of public subsidy because it’s just a classic area of externality where if the company puts all the money in the training people, a certain number of them are going to leave to other companies. And so, that’s the justification for some public support.

MR. WEST: I have a question from one of our online viewers and it concerns this issue of reshoring. And the question is which industries are most likely to re-shore? And I would just add on to that are there particular industries that we should want to re-shore versus others that are less critical mission specific?

And, you know, some people refer to computer chips as one of those sectors. But I’m just curious your thoughts. Like are there particular sectors or particular industries that we should want to come back either for economic competition reasons or national security reasons?

MS. TAITO: Well, I can tell you from a Taco perspective. I could give you a whole list of companies that I want to come back. Are they a priority for the entire nation? I don't think so, right?

And I think it’s going to depend on what industry are the most important to come back, but there are some. When we talk about things like microprocessors. When we talk about things like chips. When we talk about things, I would love to see to have some casting capabilities, but we're in a regulatory environment where do we really want those jobs to come back?

Do we want the smelting companies to come back that are steel companies? They all have regulatory impact, and we get a lot of people who will say, okay, we want that one but not that one. And I don't know if we should be in that position of picking winners and losers.

I think if people want to make a solid investment here and they feel like that they have a marketplace here and they've identified that, we should provide an opportunity for them to come back. But again, that's the marketplace driving those decisions. But I think we can do a better job at looking globally and strategically.

Manufacturing is a national defense priority. It should be. It's also a health and safety priority. We're going to make those things that are going to make sure that they protect us, and I think from that perspective we can look at critical manufacturers to do that. Do I know that list? No, I don't know off the top of my head, but I also think there's something that we should allow for the free market, right?

And we should allow for them to be able to have fewer barriers to entry. That it's not so cumbersome that you can actually start those. The gentleman in the back was talking about small, innovative companies. I would challenge that and say there are some companies that have been here for 100 years, right, who have a strategic investment in what they're doing from a research and development, or a design capability are just as worthy an investment. So, I think that with that needs to be a broader discussion as well.

MR. WEST: David?

MS. TAITO: I didn't really answer that so sorry, but my thoughts.

MR. WEST: Okay.

MR. DOLLAR: No, I thought that was a really great answer. And I wouldn't want to be in charge of making this list basically, you know. I mean one thing to keep in mind is that our economy is so complex. You know, we put things in these boxes.

We talk about manufacturing versus service. You know, in about half of the value added in stuff these days comes from service sectors, right? Because stuff is increasing smart. You know, it's got software as service sector. And whatever we're talking about you've got complicated value chains where telecom, transportation. These are all service sectors, logistics. They're all very important.

So, what do you end up with is more than 50 percent of the value of a physical product comes from service sectors. And I think in the real world, there's an awful lot of interconnection between the two. So, it's kind of hard to delineate. Well, we want to subsidize manufacturing. We care less about services but given the inputs moving into – from services into manufacturing, I think that's one.

MS. TAITO: I'll just challenge a little bit because I do believe service sectors are – manufacturing is wealth creating, right? We're bring wealth back in and adding that back into the economy. And I think service sector is some of that, but I also think that there's some of that is more of a shifting around.

MR. DOLLAR: Well, it's fun to argue with you. But really your firm has some patents and intellectual –

MS. TAITO: Correct.

MR. DOLLAR: Okay. The services from that are considered services in the initial account.

MS. TAITO: Okay. Fair enough.

MR. DOLLAR: So, you look at a firm like Apple, for example, right? And from my point of view, Apple seems like a big manufacturer, but it mostly shows up in the U.S. data a service sector because they're inventing stuff. And they're earning money off their patents and that's all considered services.

MS. TAITO: Fair enough.

MR. WEST: Okay. I have another question from one of our online viewers. And the question is President Biden is proposing cooperation between the U.S., Canada and Mexico to strengthen North America supply chains while at the same time touting the benefits of by American policies.

The question is should the U.S. be thinking about turning By American into a regional program that cuts across the three countries, the U.S., Canada and Mexico?

MR. DOLLAR: I was going to say a little. I'll let you have that one.

MS. TAITO: Should they look at it as a North American? So that's the question there?

MR. WEST: As opposed to buy North American?

MS. TAITO: I'd have to noodle that one a little bit. I think there is something about buying from our strategic allies and partners and our neighbors that makes that interesting. I don't know what the benefits of that would be because what I don't want to do is from a Taco perspective. I want to have access to those products and services. I'm not sure. I'd have to think about that one a little bit. That one is I have to think about whether I think that's an added value.

Because what you want to be able to do is get those products and services, but still make sure. Because if it's adding value to an American worker and there is a job there for them, yeah. I have to think about that one. Sorry, I'm stumbling on that one. You stumped me there for a minute.

MR. WEST: Okay.

MR. DOLLAR: I would just add, you know, the United States is much bigger than Mexico or Canada. And I would say, you know, these are neighbors and close allies.

I would say we have an interest in helping their prosperity, you know. So, cutting these smaller economies off from the United States is actually going to be penalizing them quite a bit. And I think it's more rhetoric than anything. I mean we have extended our free trade agreement with Canada and Mexico into the U.S. MCA.

The autos part of that they've really eliminated free trade in autos, I'll just be frank. You know, which is one important sector. But otherwise, you know, we have quite an open situation among the U.S., Canada, Mexico that seems like a sensible policy.

But then as I think Leslie was implying, we also have allies like Germany, the United Kingdom, France, Japan, South Korea, Taiwan. Taiwan is not an ally but it's a friend. So, are we now encouraging our firms to discriminate against these key partners? You know, that doesn't make any sense to me either economically or geo-strategically.

MS. TAITO: Yes. I'd have to think about what the – there's always an intent and consequences, right? And I'm not sure that I know enough about that if I look at it on a bigger scale to be able to – but it's definitely worth pondering.

MR. WEST: One last question from our online audience and then we'll give you the last question. What is the impact of the U.S./China strategic rivalry on global supply chains? And I'll just tack on are there things that we should be doing in that relationship that would then help us with this topic in particular?

MR. DOLLAR: So, you must have some suppliers from China?

MS. TAITO: Of course, we do. Sure, sure.

MR. DOLLAR: I mean the whole relationship with China has become very complicated. As I said, we continue to import large amounts of stuff and lots of parts and components used by American firms.

It's become so sensitive. Mostly, I think they want to keep their heads down, you know, when it comes to that. But we are the two biggest economies in the world and the number three, Japan, if far behind. So, this is the world we live in. The U.S. and China are of similar size.

China is actually the biggest trading nation. The biggest recipient of direct foreign investment. And I think it's in our economy interest to work out, you know, a modus operandi with China. It's not easy, but there are lots of clearly nonstrategic sectors of the economy. We still import a lot of clothing from China, for example.

Lots of nonstrategic sectors of the economy where we want trade and investment to flourish. And then, you know, I don't want to repeat myself at length, but we do have to define what I view as a small number of national secured, national security relevant technologies. Really focus our controls on those.

MS. TAITO: China is an excellent marketplace, right? It's a great place to buy goods and service but there are challenges to doing business there. You've got transportation challenges. There are new regulations that just passed in the U.S. that now as an American company, we are required to make sure that we can verify that they're not using forced labor and all of those things.

And I don't want it to seem overly burdensome, but there are additional again a thing that a U.S.-based manufacturer if they're using any of the Chinese products and services now there are requirements that we have to make sure that they're looking at their supply chains. That they're looking at their raw materials suppliers. That they're not using forced labor. That they're sourcing that in a responsible way.

So, there are additional things that come up when we select to do business with China that we have to pay attention to from our side because the penalties for a U.S. manufacturer if they don't comply with those regulations and they're not monitoring it can be pretty stiff. We also have to make sure that we are keeping our intellectual property very secure and that we're not inadvertently transferring that.

Of if we are giving information that we do it knowing that we're doing that and that we're doing it in a very kind of proactive way, but we also know that we're doing everything we can to protect that because you don't want to lose control of that. Because you can lose control of your intellectual competitive advantage in many ways unknowingly sometimes. So, it's strategic. You have to be thoughtful, and it does require some additional diligence.

MR. WEST: Okay. For our last question on this panel right here there's a microphone coming up right behind you.

SPEAKER: Hi. Thank you so much for speaking to us. I'm Pratov (phonetic). I'm an incoming sophomore at Yale and South Asia research at the Hudson Institute.

So, my question is because of the trade war and COVID lockdown and things like that we've seen a lot of countries in the Indo-Pacific like Vietnam, Japan and India try to kind of bring companies away that are trying to move away from China towards their own countries so I'm curious. How would you rate the level of success that these countries have had at these efforts? And do you think that longer term that these countries will be successful at onshoring companies that are moving away from China?

MR. DOLLAR: So, I think Vietnam has been the most successful. You know, quite a bit of labor-intensive assembly has moved out of China into Vietnam. But keep in mind, you know, China is enormously bigger than Vietnam, you know. So only a small amount, you know.

And then there are a few other countries, but they're really not too many other attractive production locations. And the way that this is actually happening in practice is these are mostly Chinese companies that are moving their factories to Vietnam or Cambodia and they're continuing to export machinery and parts and components. And now, they're doing a low-end assembly in Vietnam, for example. And then quite legally that comes into the U.S. without facing the 25 percent tariff.

So, I would say it certainly not a big problem for China. It's kind of pushing China more quickly into the role of foreign investor and exporter of machinery and sophisticated stuff and pushing China out of the low end, which they were going to be pushed out of anyway because their labor force is starting to decline, and their wages are going up. So, it's, you know, the geopolitical situation is accelerating in economic trend.

The last thing, I'm an economist. I think economics tends to win out. If geo-strategic considerations are pushing you in an economic direction than things go a little faster. If you're trying to go against the economic factors, probably the economic factors are going to win. So, you know, we've had all of this trade war with China. We've got more trade with them than ever before, right? So that's the economics.

MR. WEST: Okay. We are out of time on this particular panel, but I want to thank Leslie and David for sharing your insights. Great thoughts and I appreciate you taking the time to do it. And then now, we are going to move to our second panel of experts. So, thank you very much.

MR. WEST: All right. So, for our second panel, we have two individuals who have extensive experience on manufacturing and supply chain issues. So, I'd like to welcome my colleague, Joshua Meltzer. He's a Senior Fellow in our Global Economy and Development Program, at Brookings, and he's an expert on trade and manufacturing issues and thinks a lot about supply chain issues, in particular. And then, also joining us is Rachel Hoff, who is the Policy Director of the Ronald Reagan Presidential Foundation and Institute, and she writes regularly about manufacturing policy and ways to help that sector. So, thanks to each of you for joining us.

So, Josh, I want to start with you. Obviously, we heard from our first panel there are many challenges in the supply chain area. Many would like to bring jobs back to United States, but how realistic are the possibilities for doing that?

MR. MELTZER: Well, I think, in part, it depends on what we are talking about when we think about the types of jobs that we think should be back in the United States. Just from a macro perspective, we've clearly got a very tight labor market, at the moment, with wide -- rising wages, really, across the whole band, and, in fact, wages are rising a lot more rapidly at the lower end than they are at the upper end, which is a positive development for the country, overall.

But it points out one of the sorts of macro challenges, which came up, I think, in the last panel, which is that in this type of environment, if you're going to bring jobs back to be employed in a manufacturing sector that is not currently here, there's going to be less jobs and less opportunity to do something somewhere else. And so, I think we just need to think carefully about what we're -- what areas that we want to bring jobs back into and what -- that matter. So, this is sort of this intersection, I think, of what's economically sustainable over time, in the United States, and what's strategically necessary, or what's necessary from a security perspective. And this is, I think, this intersection between national security and economics, or geostrategy and economics, and what we can make work and what we can make work well.

I mean, one of the things that I am a little concerned about is there's a lot of enthusiasm at the moment for government investment into supporting, reassuring, al assuring, whatever we want to call it, rebuilding certain manufacturing sectors, which, overall, can be a positive thing. But if we don't do it well, and if we spend a lot of money and don't get good results, we're going to reaffirm the view that government spending in these areas is a waste of money, and we probably won't do it again for another generation. So, I want to make sure that what we do now is effective and well-targeted and actually produces outcomes that are going to be here not just for one or two or three years, but for, you know, 10 and be here and produce sustainable companies.

So, my -- you know, I don't want to -- my -- I was following the conversation in the panel before, and I don't want to repeat a lot of what was said there, but I think, you know, David's sort of categorization of we want to make sure that we are -- he was talking about this in terms of China, but I think I would broaden out this idea that we want to be doing more in this country of what we determine is necessary from either a national security perspective or from a sort of a slightly broader, maybe resilience perspective. Those things are not necessarily overlapping, obviously. It's also not necessarily the case that either national security or resiliency leads you to the conclusion that you should be doing it all in the United States.

I mean, the IMF and others have done some good work recently, and I think these conclusions are pretty intuitive, which is that you're more resilient if you have a variety of suppliers, if you have substitutability in your supply chain. It's -- if you have it all concentrated in one area, then shocks to the system mean that the shocks are amplified. And so, resiliency and national security may even suggest that we don't necessarily crowd it all back into the United States, that we look at particularly trusted allies, where we can build, you know, additional capacity and so forth.

Having cleared my throat on that, though, that would be my kind of framing, right? And so, then, we get into some of the areas which I think have already been discussed around -- you know, there -- I think there's a good argument for more semiconductor manufacturing. I mean, that's concentrated in a couple of countries, and they're a risk there. You know, there's an argument, I think, possibly for thinking more carefully about medical devices and what we need -- what capacity we need for future, you know, pandemics and so forth. There are some industries in the United States which may be less critical from a national security perspective, like autos, but are clearly critical industries from a broader sort of economic, resilience, manufacturing perspective, and when you think about, obviously, transitioning into EVs, what does that supply chain look like? How do we make sure that we remain competitive in that? So, I'd sort of think about it through those lens, and I think that would lead you to, you know, a fairly narrow range of industries, which, I think, you know, there's an argument for focusing on.

MR. WEST: Okay, great. Thank you. And, Rachel, first of all, thank you for joining us, and I'm curious, your thoughts on what are the best ways to address global supply chain issues? What are the problems you're most worried about, and how can we deal with those issues?

MS. HOFF: Well -- well, thanks so much for having me, and to Brookings for hosting the important discussion. Let me associate myself with my colleague's comments here and also several of the threads that came out of the previous panel that -- just to say, you know, the way that I think about this and the way that the Reagan Institute has focused on this set of issues is pretty narrowly tailored to that national security lane, to where there's an overlap between our domestic manufacturing competitiveness and kind of the strategic sectors that are critical to maintain, in terms of our global competitive position.

I do -- I agree that there may be a broader conversation around other industries that are important to our national resilience, our economic resilience, but our work in this space. And a report that we put out just a few months ago looks specifically at that intersection with national security, and I think many of the recommendations resonate with those, Darrell, from your report.

In terms of where those -- and let me kind of pick up on maybe some of the questions from the previous panel and then get to key challenges and solutions. In terms of where those sectors are, there's actually been a lot of work done in both the Biden administration and the Trump administration, out of the White House and the Department of Defense, from the House Armed Services Committee, as well from Capitol Hill, in identifying exactly what those sectors are, what those critical capabilities are, and what capacity we need to have in the United States or to the point with close allies and partners. Some of them have already been addressed, chips, semiconductors, microelectronics, but also energy storage and batteries. There's a conversation around, obviously, our kinetic military capabilities and industries sort of more in the traditional defense industrial base.

And then, of course, a lot of conversation around rare earth minerals and critical materials in that regard. So, I'd encourage you to read some of those reports from the House Armed Services Committee, Critical Supply Chain Taskforce, out -- and again, reports out of DoD, from both the Biden and Trump administrations, over the last few months, in response to Executive Orders saying, where exactly do these critical capabilities lie, and what industries do we need to encourage here at home, incentivize here at home?

I think, in terms of challenges and solutions, I think the previous panel touched on much of what we've found in this regard, as well. Workforce challenges, certainly, I think, at the heart of any conversation about manufacturing capabilities. Obviously, COVID and the pandemic unveiled a lot of those challenges, both on the workforce side, on the supplier ecosystem side. But I think those challenges, you know, were there before. The skills gap between the workforce that our employers need and the job applicants coming into the market is huge. And there's, I think, a role for -- I think the question we always come back to, I always come back to, is where's the role for government in providing some of these solutions, helping the private sector provide some of these solutions, specifically where it's tailored to our national security needs.

MR. WEST: Okay, terrific. Thank you. So, Josh, on the logistics front, it seems like any discussion of global supply chain issues immediately gets into logistical considerations and then, especially, transportation issues. It seems like that has been a big bottleneck, both on the cargo ship front, as well as some of the air supply. So, I'm just curious how you see the problems in that area and then possible solutions in dealing with those issues.

MR. MELTZER: Yeah. I mean, I think that's absolutely correct. So, on the one hand, I think there's a sort of domestic infrastructure investment component, and I know you touched on that in the previous panel, and, obviously, there's -- that's going to build up steam over time, here in the U.S., through the Infrastructure Bill that passed and other investments that are coming online. There are specific bottlenecks, which everyone's aware of. Forty percent of, you know, shipping, you know, traffic goes through two ports in California, through California at Long Beach, and, you know, there's been effort. The White House has, obviously, been engaged on those fronts. We've got the Jones Act, which is, you know, a pretty restrictive piece of legislation, which raises costs for shipping, internally, in the United States. So, we end up with a lot of use of roads and rail and so forth, and that's something which could be looked at from a competitiveness perspective.

And then I think there's a broader, you know, sort of infrastructure investment piece, globally. And this, interestingly, I think, intersects a little bit with the geopolitics, as well, because, one level, it's -- there's a huge infrastructure need, globally, and if one thinks about the desire to encourage manufacturing and alternative supply chains outside of China, you need the infrastructure as just a key building block to enable that to happen. China's been investing in that, obviously, through their One Belt, One Road Initiative.

And there is now, I think, even increasing focus by the U.S. and other allied countries to sort of providing additional finance and investment into infrastructure, as well. And I think that's just a good thing, overall, from multiple perspectives, not just from an infrastructure supply chain perspective. But that is going to deliver some benefits over time, in terms of creating new platforms for alternative supply chains, and so, it underscores that there's sort of a domestic piece and there's a global coordination piece.

I mean, we saw President Biden, at the G20, last year, call for, you know, coordination and more infrastructure investment to sort of alleviate the supply chain bottlenecks, the -- I think this is going to be a topic which will come up in the G20 this year, so. So, there is that bit, as well. But I think you're going to need both of those elements, if we're going to get serious about kind of getting at the -- that substrata of the supply chain piece.

MR. WEST: Rachel, I'd love to get your thoughts on this logistics piece, as well, just in terms of both the problems you see and are there ways we can mitigate those issues?

MS. HOFF: Yeah. I think the infrastructure piece is a really important part of it. You know, it's important to have roads and bridges, but it's also important to have factories that are capable of producing products to move across those key infrastructure pieces. And so, I think thinking in new ways about both Federal investment in this space but also the money that's going to states. A lot of states, you know, saw a big influx of capital with infrastructure, all for infrastructure spending, and to see -- to work together with states, more sort of Federal, state, local coordination, in order to understand how some of those dollars can be invested in ways that are helping address this problem, I think, is a really important piece of this. A lot of Governors and Cabinets, some of them have human capital and positions built out to help understand these issues, but many do not.

MR. WEST: So, we know that COVID accentuated many of the problems, in terms of supply chain, and, hopefully, we are starting to come out of that pandemic, although it seems like it's the pandemic that's never going to go away entirely. So, Josh, I'm just curious, your thoughts on how much of the current supply chain issue actually is COVID-specific and pandemic-specific, and what are the things that are actually likely to ongoing, if somehow COVID starts to drop, not disappear, but drop to some more manageable level?

MR. MELTZER: Yeah. So, it's a mix. I mean, I think some of these supply chain bottlenecks have been building for a while, and so are more structural than COVID. COVID had -- I mean, the response to COVID exacerbated some of these issues. I mean, certainly, when it comes to, you know, questions around, firstly, shutdowns, you know, that's still going on in China, and -- but that took capacity offline and completely disrupted supply chains. And I think that, you know, really, really made clear the various dependencies and risks in the supply chain. Yeah, that became very clear.

Even in North America, we saw, at the beginning, you know, pretty uncoordinated border closures, which affected supply chains, that got, ultimately, worked out. But even across North America, that eventually worked quite well, in the end, but that, again, underscored some of the challenges there.

Then, we saw, on the labor front, people just weren't going into work. So, it was just difficult to produce things. And that was a factor that kind of rolled across the world with COVID. And then we've had, on top of that, these enormous stimulus packages to respond to COVID. I mean, the U.S., in particular, had -- it's had -- you know, I think it was two trillion dollars, last year, and so, that's created enormous demand, and that put this additional, I think, stress on the supply chain. So, you've had these supply chain/supply side issues, which, I think, have highlighted the challenges with the supply chain. And then we've ran into this sort of combination of people staying home, a lot of pent-up demand, and then a lot of stimulus, which, you know, got released, certainly, last year, in particular, and the two things collided, and we saw the supply chains, you know, really faulter and come apart in some respects.

So, that's sort of, I think -- now, to the extent that that is a -- some of that is clearly going to dissipate over time, right? So, you know, the demand side kind of stimulus piece is going to play out over the rest of this year. There's still a lot of savings in the U.S. economy, as a result of that, and, you know, the people are, obviously, speculating about, now, potential recessions, next year, and so forth, with rising interest rates. So, that piece will dissipate.

The supply chain side of it is, I think, also -- this is, I think, the part of the focus here today, in a sense, which is some of that supply chain -- those supply chain issues are clearly working themselves out. So, you know, the Long Beach, you know, California port issue has improved, you know, somewhat, from, you know, six months ago, for instance. And there is infrastructure investment going on, and factories are opening up, and so forth. It will like put as a sort of a pretty significant asterisk.

It will be important to see what happens with this new strain of the -- of COVID going around, which is extremely transmissible, which I understand is in China, as well, and if they go back into major lockdowns, what that does to the supply side of this, so the supply chain, that may well, you know, still have a fair way to run. And then, I think there's a question of, you know, what we're doing, you know, how we want supply chains to look going forward. I mean, that -- that's, I think, the unknown. But without further -- if -- you know, leaving everything as it is, without further government intervention, if we just wanted to sit back and let things work themselves out, my expectation is that things would recalibrate over the next sort of 12 to 18 months, but back into something that looks not too dissimilar to 2019.

MR. WEST: Rachel, I'd be interested in your thoughts on that. How much was specific to COVID, and then Josh has presented what I would view as a somewhat optimistic view, in terms of the things going forward, perhaps returning shortly to the pre-COVID world. Where do you lie on that?

MS. HOFF: Sure. I think, you know, when we talk about logistics challenges, and shutdowns, and all of that, there is certainly, clearly, a case where some of the broader supply chain challenges that we're facing are in large part because of the pandemic. When it comes to the piece of this around our national security relevant or strategic sector, manufacturing capabilities and our shortcomings in that regard, I think there's a lot of evidence to show that it predated the pandemic and only got worse in certain ways but would have been bad anyway.

One -- you know, I mentioned all the work that DoD, across bipartisan administrations and also leaders on Capitol Hill are focusing on these issues. The Executive Order in the Trump administration, I think it was 13806, predated the pandemic, I believe. And so, there's -- you know, there's -- they're asking the DoD to look into supply chain shortages in these critical sectors and what can be done about it.

So, you know, in terms of outlook, in that regard, you know, not as good as it would have been if we had been pandemic-free for the last two and a half years. But I think the evolving emerging, I should say, bipartisan consensus on these issues, that there are these critical sectors in our economy and in our manufacturing sectors that matter to our strategic competition, particularly with regard to China, and that, beyond that, there is a role for government in helping the private sector address those issues. My outlook is perhaps somewhat optimistic, as well, because I think, you know, the -- if the first step is understanding the problem and agreeing on the problem, you know, I think we're well on our way there and can start talking about solutions. And certainly, some of those have already been presented, both on Capitol Hill and in the administration.

MR. WEST: I like optimism. We can use some optimism in this town, so. So, Josh, in the first panel, we talked a little bit about competition policy and the extent to which some supply chain issues might be being exacerbated by lack of fair competition in certain sectors. So, I'm just curious, your thoughts on that, how big of an issue is that, as opposed to some of these other sources that we've been talking about?

MR. MELTZER: You know, to be honest, I'm not -- the intersection between this competition and supply chain issues, I'm not completely clear on. It's complicated. There's obviously a lot of focus on big -- on the one hand, when you think about big companies and how they manage supply chains, one of the things they do, if you think about a Walmart or an Apple, for instance, you know, Amazon, they actually drive down costs through their supply chains and with the ultimate aim of trying to get low cost products to consumers.

Now, bracketing the question of whether there should be more competition at that end to sort of improve the outcomes and quality and so forth, so. But it is often like a capability that large companies have in the market to do that. Now, they don't necessarily need to be monopolies or (inaudible) to achieve those outcomes, but we are seeing, obviously, more concentration. But my point, simply, is that that intersection between largeness and bigness, and supply chains, and whether that is actually a good or a bad thing is not clear. There's a lot of coordination, costs, and complexity that, often, big companies manage well, and so forth.

Then, you know, there's the question about whether or not there's another sort of competition in the market when you think about the focus at the moment, particularly on the tech sector. You know, it has sort of come off this idea that's been prevalent in the competition policy space, that we've ultimately been looking very much at consumer prices and consumer benefits, and we've seen, you know, in the tech sector, a lot of essentially declining prices and a lot of free products and goods and services, and so, we've been less concerned about the concentration in that sector, over time.

We are, of course, more concerned about it because we've started to rethink about what free means and look at it, you know, in a broader sense. But, you know, whether or not, you know, that is actually -- whether more competition -- how more competition in that sector is going to impact supply chains, itself, I think is complicated. So, I sort of -- I'm --- I don't actually come down firmly one way or the other on what those two intersections are. But I can see bigness actually generating a lot of supply chain benefits. But I do -- there may be -- they're obviously where you genuinely think there's concentration to market. There are going to be costs at the other end, which is a genuine focus for competition policy.

MR. WEST: Rachel, your thoughts on the competition policy issue?

MS. HOFF: Well, I -- speaking as somebody from the Ronald Reagan Institute, I'm pro-competition and pro-free market, certainly, and I think that, you know, to the conversation on the previous panel round, this isn't about picking and winners, winners and losers. There's a really important kind of conceptual point to be made about when we think about competition or even, you know, the government role in any of these areas and how industrial policy plays into this conversation. There are kind of two ways of thinking about that. One is sort of a vertical approach, where you have sort of a government role in a really specific or niche area of the economy or -- and to support particular firms.

Then, there's more of kind of a horizontal approach, which is this is about sort of broadly, across big sectors of the economy, creating a talent ecosystem, a supplier ecosystem, a capital ecosystem, a capital investment ecosystem that allows firms to succeed. And then think that -- when we think about it more in terms of that horizontal approach, it sort of gives us more of a sense of how and when there's a government role here, and that sort of identifies where competition then, still, is an important part of the system, without having that like vertical deep in the weeds -- that would -- government role that would eliminate the role of competition.

MR. WEST: So, Josh, on workforce issues, how do you see either the worker shortages that we've seen in a number of areas or just lack of proper worker training for the skills of some of the new industries that are developing contributing to supply chain issues?

MR. MELTZER: Yeah, so, a couple of observations. And I know this came up before, so, I'll try to say something different. One is I think we need immigration reform. You know, this is absolutely, I think, essential when we think about building. I mean, this has been such a strength of this country, and, you know, it will continue to be, if we think about this, you know, in part, and through -- particularly through the economic lens. I think it's absolutely essential.

The other piece is what is, I think, abundantly clear is not so much that there are not going to be jobs around, but there's going to be a mismatch between the skills that the jobs require and the skills that the workers have. And this is well-understood and increasingly as -- whether it's in manufacturing or services, it's all -- it's high -- increasingly high-level, high-skilled work. I mean, the -- in the manufacturing sector, increasingly, that's absolutely the case.

I know on the panel before, you were talking about, you know, businesses do some of this, and I think Dave made the comment about, you know, there is, obviously, a requirement for government role, given the extent that there's sort of, you know, a social benefit, which exceeds sort of the return to business, can capture further investments. I will say that, you know, I know that governments have been spending a -- you know, you made the point, Darrell, that there has been some significant investment with not that great a return, in terms of upskilling and job training, and some other countries do it better. There are, I have to say, beyond sort of work firms training workers for their, you know, own use and governments providing it.

There's a third thing that's developed, which is that, you know, there's a lot of really interesting businesses that are now -- private firms, which are essentially taking on the role of filling this gap, trying to train workers and -- but doing it in a way which works very closely with businesses identifying what their skills needs are, taking students, often out of, you know, the end of high school or at early stages in a -- but when they're thinking about, you know, the next steps, and moving them into these programs, which are accredited and recognize and have very high rates of return, in terms of getting jobs, at the end of it, because they're closely tied with industry needs, and there's a couple of excellent companies, I'm not going to name them, in the UK, doing this, in the U.S., as well.

And so, I think there's a real development there, which is worth thinking about as sort of also part of the solution here, rather than, you know, there's a -- maybe instead of more government funding, which hasn't produce great results so far, is thinking about how that space can be built out, and potentially there's a private sector/public sector role for building programs, which are much more attune to workers' needs, but are not relying solely on the work -- on the firms to do it themselves.

MR. WEST: And it's interesting you mentioned immigration reform. We should mention the last major immigration bill passed in the United States was under --

MS. HOFF: Ronald Reagan.

MR. WEST: -- President Reagan. Definitely. So, a lot of current Republicans have forgot about that. But your thoughts, either on the immigration angle or just workforce and skill development, in general.

MS. HOFF: Yeah. Let me speak broadly to the workforce piece, in particular. And I'll get to the immigration question later on. But there's -- so, I mentioned the Reagan Institute put out a report on manufacturing competitiveness and national security. We convened a taskforce over the course of 2021, bringing leaders from the private sector, current and former government officials, thought leaders, together, and the taskforce really focused in on this workforce challenge and wanted to develop some potential solutions. And I want to highlight one of them that I think plays on what Josh was saying about sort of the, you know, government funding hasn't always solved this problem, but, clearly, the private sector knows what their needs are.

So, one idea that the taskforce came up with, that I think is worthy of consideration, is around reallocating some of the Federal education dollars that, for example, Pell Grants, that currently can only go to degree-granting colleges and universities, so four- or two-year degrees. A lot of the skills that are needed to address our manufacturing shortcomings are high skill. I think there's an immigration piece there. But a lot of them are also just basic trade capabilities, and our workforce development, in that regard, is lacking, as well.

So, training programs, even if they are, you know, led by these private sector firms, perhaps in partnership with, say, a community college, but not toward a degree at the end of the program, but even just private firms, in their own regard, to host these workforce training programs, they know the skills that they need out of their workforce. If we made Federal dollars which follow the students -- Pell Grants follow the student. If the student goes to a four-year college, they get the money. If they go to a community college, they get the money. Well, they should be able to go to a workforce training, skills training program, as well, and have some Federal support, in terms of educational dollars, following them to those programs, given the skills gap problems that we're facing, writ large.

One advantage, I think, of this approach is that, of course, it's the larger firms and companies that are going to have the ability, the capital, the facilities to host these workforce training programs. But they'll have effects that will benefit the small and medium size enterprises, as well, that maybe can't stand up their own workforce training program. So, if you imagine a big defense firm that hosts a training program for some of these critical capabilities, and then they hire a certain number of those workers, there are going to be surplus workers that are now trained and maybe have a certificate in that -- from that training program that can then go on to be hired by some of these smaller or medium sized enterprises that don't have the ability to stand up these programs on their own.

I also think there's a whole conversation here around stackable credentials and where you can maximize some efficiencies in that regard. Let me just speak briefly, though, to the immigration piece. And I think this especially comes into play on the higher skill end of the workforce and skills gap that we're facing. We have to be able to graduate a certain amount of American STEM talent from our colleges and universities. We also have to and have traditionally benefitted from the brain drain of the rest of the world, bringing the best and brightest talent, especially in STEM, in STEM fields, to the United States, to educate them at our colleges and universities.

We then, largely, don't -- we fail to provide any way for them to stay and to work on our country's biggest challenges. Some of them won't want to. Some of them will. And I think, you know, reforming our immigration system to allow these students and graduates a mechanism to stay will continue to leverage what's always been great about America, which is that people want to come here and work on -- work with some of the best companies in the world on addressing some of the hardest challenges in the world.

MR. WEST: And just to extend that last point that she made, I've often made the argument, obviously, America needs a technical workforce and people with science, and technology, and math skills. There are two ways to solve this problem. One is we can convince native born American students to get interested in these STEM fields or, two, we could, basically, encourage immigrants to come here, who often do have these skills, or they acquire them once they're here, and allow them to stay.

Right now, America is screwing up both of those things. Native American students, by and large, are not studying these fields, and then we're cracking down on immigration. Like, we can screw up one of those two areas. We cannot screw up both of them, which is what we're currently doing, without there being a big cost in the long run.

MS. HOFF: And if I might, just on the sort of native-born piece, there's -- you know, we've all heard about -- you know, it -- my parents and my siblings are all public schoolteachers, and all they talk about is STEM. It's STEM. My sister-in-law is an art teacher, and she's doing trainings on STEM in the art classrooms, right? I mean, it's STEM across the curriculum. The problem is we do a good job of that now, at least at the primary and secondary level, but American students with STEM degrees tend to max out at the post-secondary level, with a bachelor's degree, and then cash out in Silicon Valley, to be frank. They're not going back for graduate degrees in STEM. They're not going back for PhD degrees in STEM in large enough numbers to fulfill sort of that side of the coin, although certainly both domestic and foreign talent, I think, are important in this regard.

MR. WEST: So, I have one last question for each of you on geopolitics. Then, we're going to open the floor to any questions that you may have, so. And obviously, this came up on our first panel, as well, but it's a topic that's hard to avoid, just the extent to which the complicated geopolitics of the world, now, impinges on supply chain issues. And the question is, like, how much of it actually is supply chain problems, as opposed to supply chain problems that are exacerbated just by all the complex geopolitics of India, China, Russia, and the developing world? Josh?

MR. MELTZER: Wow. A small question to end on. So, you know, apart -- part -- I think, you know, part of, I think, what we saw over the last couple of years, with the pandemic and these -- and the real disruption to supply chains it concerns around, for instance, what does it mean when, you know, a certain amount of our medical equipment is manufactured or comes from China, and, you know, concerns that China might, you know, restrict those flows of goods and so forth.

And it's this notion of trust, which has, you know, been hard to define, but as, I think, as -- no one's ever questioned this idea that if you were dependent on other countries, which is sort of, you know, inherently a byproduct of having global supply chains, that these would be used and for other sort of noneconomic kind of purposes and so forth. And others have written about sort of the weaponization of supply chains or the weaponization of sort of connectivity.

And at some level, we have to get a handle on what do we really think our exposure is when various products and services are being manufactured overseas, and, particularly, which are critical and which are being manufactured by, you know, one or two suppliers, where if they really shut that off, we would be left without an alternative? Because you can imagine, if you let your imagination run away, right, you can get concerned about everything because we are very globally integrated. I mean, Dave -- you know, and Dave made the point, despite the tariffs, you know, the last five years, trade with China is up 50 percent. So, turning this off is very hard.

We need to think about, I think, the globalization piece carefully because if we get it wrong the costs are going to be very, very significant, and not just in terms of it will be very costly here in the United States. One of the things that is also clear is that, while we may feel exposed by being part of supply chains and having, you know, China being a critical supplier in various ways, the United States remains sort of the most centrally connected economy, which gives it actually huge leverage over other countries. I mean, that was made abundantly clear, I think, at the moment, with what's happening with Russia and Ukraine. You have the sanctions, both on the goods side and on the financial side. It was only made possible by the fact that Russia's still integrated into the global economy and actually depends on a huge amount of technology, which tends to come from the U.S. and allies.

And similarly, we may feel somewhat exposed to China, but China, on the other side, I think, feels extremely exposed to their dependence on U.S. technology, and capital, and finance, and so forth. And so, this is very much a two-way street. And undoubtably, China is looking at this as carefully as we are looking at this. In fact, China is also trying to, in a sense, deglobalized and reduce its dependencies at a rapid clip, at the moment, notwithstanding -- irrespective of what we think we should do. I mean, China's been trying to develop alternative, you know, SWIFT and financial networks and, you know, trying to, you know, globalize the RMB. And it's very clear that through this circular economy notion that they're trying to increase domestic production on a whole range of goods and services. So, there's a process under way because it's become very clear that the supply chains, if we understand them as networks, have created dependencies, which, in a world of geopolitical tension, start to look a little unsustainable.

From our perspective, I think we need to think about this, so, in terms of what of our risks, but also how do we actually sustain these networks, these supply chains because they're also good for us, economically. But they're actually also good for us, strategically, as well. You know, shutting America off from these networks is actually ultimately just going to be a known goal because we are, as I said, central to those networks and actually get a lot of power, as a result of those networks.

So, I would want to think about this, you know, coming back to, I think, what we were saying at the very beginning, through a very sharp national security lens. You know, what are our genuine areas of risk and exposure? And I think that's going to be a manageable set of issues, at the end of the day. It's going to be very technology-focused, but not entirely. I mean, there's going to be critical minerals in -- that go into batteries and so forth, which we're going to have to look at carefully, clearly.

But then, there's going to be a whole range of other areas, where I think that we can genuinely say that the market should decide, and firms should be free to engage and build supply chains where it's most efficient. And I think we're not close to getting that balance. There's processes underway, such as in the (inaudible) and what -- you know, the (inaudible) ultimately look like, which I think will help set some of those parameters. But, you know, I think there's -- we're going to have to grapple with that. But that's sort of how I sort think about that intersection between geopolitics and supply chains.

MR. WEST: Okay. All great points. Rachel, your thoughts on our complex geopolitics, then we will take some questions from the audience.

MS. HOFF: I think what I would add, you know, in brief, is sort of the nature of the competition, itself, is important. And it's really critical to understanding American strengths in that competition. So, particularly in the competition in this regard, vis-à-vis China, there are real advantages to a state-driven system. There are real advantages to a system, if you're looking to maximize everything we've been talking about today, to having little, if any, distinction between your public and private sector.

However, that's not the American way. And I think that the leaning into American strengths, with regard to -- in this competition, with regard to our free and open system, with regard to competition, with regard to innovation is how America has succeeded in the past and, to end on a note of confidence, how I think we'll succeed in this competition, as well.

MR. WEST: Okay, great. Let's open the floor to any questions that you have. Just raise your hand. We have a couple questions over here, so. Let's start with the young lady. Well, then, we'll come to you. Yes? No, go ahead.

MR. SUNG: Hi. Hi, my name is Chi Sung. I'm a master's student at Harvard University. I've got a question about the relation of inflation toward some of these supply chain challenges we face today. There have been questions of the Biden administration about whether lifting tariffs on China will allow for inflation to be tamed, while at the same time, Indonesia, for instance, has put export restrictions on crude palm oil because they want to manage the increasing price of energy back at home. So, my question is how do you see this sort of inflation affecting the ability of states -- the behavior of states in return -- in relation to like global supply chains? Thank you.

MR. MELTZER: Yeah. So, I -- the China tariff piece is obviously got an economic and a kind of a strategic element to it. I think, on the economic inflation side, it's pretty clear that reducing tariffs there would have an impact on inflation, and it seems to have, you know, done a lot of -- you know, more harm than good, probably, for the U.S., in the long term. I think we can be serious about China and the threats it poses, without necessarily relying on heavy-handed tariffs to get at that challenge.

That said, I do appreciate the -- I mean, now that they're there, there's a lot of leverage. So, I think using that in a smart way is also important. More broadly, I mean, to your point, we have seen -- I mean, there was a -- that there is -- there has been a growth in, you know, export restrictions, as well as import restrictions, over the last couple of years. And so, certainly, that is something that we would traditionally try to get at, through a WTO process. I mean, there are essentially rules and disciplines around that. So, we have the infrastructure to address it. I think it requires -- you know, we had a pretty good outcome at the WTO Ministerial, last month. You know, it was not a blowup. And there were some outcomes, which I think were quite positive. And so, reinvigorating that process and using the rules that we have in the WTO to sort of really push back in a serious way on some of these export restrictions, in particular, which are challenging, is, I think, the way to go at the moment. And then, I think we need to reinvigorate our trade policy agenda, you know, frankly. You know, we need to be a lot more, I think, proactive on that front, which we're clearly not, at the moment. The Indo-Pacific economic framework is sort of being launched. It's, you know, going to take a while to play out, and we'll see where that ends up. But that's not a Free Trade Agreement, as we traditionally understand it. And, you know, whether it gets at some of these issues is unclear. But I think the trade policy route is one policy lever which is probably, you know, being underused, at the moment, to get at some of these challenges.

MR. WEST: Okay. There's a question right there.

GUZIN: Yes. Thank you so much. My name is Guzin (phonetic), and I'm a rising sophomore at UNC Chapel Hill. And right now, I'm conducting immigration policy research at the New Alliance Institute. I wanted to go back to the workforce kind of dilemma and how like immigration plays into it. Most of the discussion here today was based around college students and their permanent residency, but I wanted to ask you about your thoughts of professionals that went to school in foreign countries and now are immigrating to the U.S. I'm a first-generation immigrant, and my parents used to be, both, doctors. And my mom is an infectious disease specialist, and she couldn't find a job during COVID.

MS. HOFF: Hmm.

GUZIN: So, it kind of -- in that realm, what do you suggest policy change should look like. And in a broader sense, H1 Visa is one of the very few visas that do grant permanent residency. But the H2 and the H3 Visas only allow for immigrants to work for a certain amount of time, and then they have to go back. So, do you think that policy reform in these areas would solve most of the labor issues that we have in the U.S.? Thank you.

MR. MELTZER: Take that one.

MS. HOFF: I'm not an immigration expert, and you, it sounds like, probably know more about it than me. But I do think that, you know, talent that's educated -- bringing talent that's educated elsewhere here is an important piece of this puzzle. It's probably not the silver bullet solution or the only piece of the puzzle. But, I think, in addition to what Darren and I were speaking to earlier about foreign talent that we educate here in the United States and domestic born talent, that's a really important piece that was left out of that conversation. So, thanks for raising that.

MR. WEST: Okay. Right, there's a question.

MR. BARNES: Yes. Thank you very much. My name is Lafayette Barnes. I'm President of a company called SME Zulu Global Enterprise and a retiree. So, I'm happy about that, after many years in local government. But my question is actually two questions. One, for Rachel, if you could drill down a little bit on the workforce development type of training, particularly in the STEM area, I mean, what does that mean, in terms of folks who are involved in workforce development here, in the district, as it relates to training, you know, residents for those particular opportunities? And then the second question is really for any of you. As this is a global supply chain issue, nobody said anything about Latin America or Africa, and I'm just wondering do you have any thoughts about the implications of our trade relationships with China and other Asian countries and what impact that has, if any, on other parts of the country -- of the globe, I should say? Thank you.

MR. WEST: Great. Great questions.

MS. HOFF: Just briefly, on both, and then I'll defer to Josh, but the -- to the kind of local role in STEM education, I think that's where it comes down to laying the groundwork at those primary and secondary levels. And that's something that I actually think we've made a lot of progress on, in recent years. I think the challenges remaining are in those post-secondary and advanced degrees, in terms of high-skill STEM talent.

And then to the question particularly about Latin America, I think that that does play into some of the conversations we've been having around kind of nearshoring and friend shoring. So, there's a -- you know, the difference between onshoring, bringing things back to the United States and bringing some -- them back to, say, the Americas. There was a question in the previous panel about North America to include Mexico. But I think, you know, looking at Latin America more broadly is a really important part of what we can produce in this hemisphere, if not in this country.

MR. MELTZER: Yeah. I'm just picking up on the second question. I mean, I completely agree with it. I mean, Mexico, clearly, can play a very particular role, given its integration, already, into North America. I wouldn't want to overstate that, I think, but, you know, there is some specific industries, you know, where one thinks about -- in terms of IT, or medical equipment and devices, and batteries, and so forth, where you can easily imagine, you know, a pretty critical role for Mexico. They've got a skilled workforce. There's, obviously, infrastructure links and so forth.

And Latin America, more broadly, I mean, the U.S. has a number of Free Trade Agreements with a number of countries in Latin America, and there's, clearly, opportunity there. There was, actually, a -- we will recall the Free Trade Agreement of the Americas, during the early Bush years, I believe, which went nowhere. So, there's been various visions, over time, of knitting the hemispheres, you know, more closely together, economically. One would hope that there's a pathway to doing that, at some future point. I think the politics in South America, generally, are challenging.

At the moment, we've had elections in (inaudible) to the government in Colombia, and then there's a process to amend the constitution underway in Chile. I've got no comments about that. But what that means, in terms of thinking about free trade, and integration, and supply chains, I think we have to see where that goes. But there seems to be real potential. I mean, there's skilled workforces. You know, there's a lot of -- there's -- Spanish-speaking is obviously not a language barrier in the United States. There's a general rule.

We need to work on infrastructure, I think, if we're going to get serious about supply chains in a more meaningful way, across the hemispheres. When it comes to Africa, you know, this is one area where the U.S., I think, has always underplayed and really needs to refocus. And I think there are efforts underway that's been proposed, FTAs and so forth, and AGOA has, you know, been helpful, from a development perspective. But I think, in getting serious about thinking about Africa as a genuine kind of major, you know, alternative manufacturing sector is not one where, I think, we've given enough attention. And now, there is a Continental Free Trade Agreement there, which is going to really, I think, potentially stitch a lot of these countries together in a more meaningful way. So, there's a lot of potential there. But again, I think we're going to get back to the issues like infrastructure, governance, corruption, rule of law, but these are not necessarily intractable. But I do think it will require sort of a renewed focus on Africa, as an alternative sort of supply chain and manufacturing destination.

MR. WEST: Okay. There's a question right over there.

MR. CASAS: Thanks. Hi. Pedro Casas. I'm the Research and Policy Manager at the U.S.-Mexico Foundation. So, you get a sense of where my question is heading.

MS. HOFF: Mm-hmm.

MR. CASAS: I think we're missing two very pragmatic things to discuss on a wider and long-term perspective, which is, first of all, the current U.S. market doesn't have the labor capacity to fill all the job openings there are, right? So, there's not enough people to cover the things that can be done. And second -- secondly, the U.S. population is aging. In a few years' time, the Social Security system is not going to be able to help with -- given the demographics that we have. And when you look at Mexico, your closest neighbor, your closest ally, you can find pretty much all the solutions there. You have complimentary workforce. You have younger workforce.

And nonetheless, when we were asked about North America and when we are asked about Mexico, the topic's kind of not even in the table. The Mexican President was here yesterday with a whole delegation of businesspeople, including Carlos Islam. He used to be the richest man on Earth, for several years. And it didn't make it to any headline of any newspaper in America. You know, we cover that -- the production of Peloton bicycles or -- and we found like 1,000 puppies, but the Mexican President was completely irrelevant. So, anyway, my question is, why aren't we discussing about Mexico, when, to my point of view, it's a low hanging fruit for, you know, building a stronger, more resilient supply chain, here in America and in the continent? Thanks.

MR. WEST: Thank you for that question. Our panelists?

MR. MELTZER: Yeah. I mean, so, you know, part of my workstream here is on North America and USMCA. So, I -- I'm very sympathetic to your points, and, you know, I'm not going to comment on what the media does or doesn't cover in any particular day. But the -- I do think there's a couple of, you know, things going on there. One is that the U.S. does take its relationship, in a government relationship, with America and Canada, and with -- so, you -- Mexico and Canada, I think, for granted. You know, and so, there is that. And, you know, it's a relationship with its ups and downs, but which fundamentally works. And the U.S. is the guerilla in that relationship, and so, there's a sense of, you know, this can drift. And I think that's a problem because we saw this perspective, over time, with NAFTA, and we saw that, ultimately, you know, this was one of the reasons that we ran into so much trouble, I think, during the Trump administration.

And we have a new agreement in place now, which is different, and I think it's important, it got a high level of bipartisan support in the Congress. So, it's a new opportunity to rethink how do we take advantage of our relationship with Mexico, and where one thinks about the issues we've been talking about today, resilient supply chain, securer supply chains, the types of manufacture we want to bring back, we must think about this from a North American perspective, not just a U.S. perspective. It would be a critical mistake not to -- we would lose resilience. We would lose competitiveness. We would lose opportunities to strengthen our relationships with our two closest partners if we don't think about this through a North American lens and not just a U.S. lens. So, you know, I think that's fundamentally important.

And, you know, I -- irrespective of what wasn't reported on yesterday, there is, fortunately, quite a bit going on, thinking about where Mexico can play a role. And I -- you know, I take your point about the -- it's a very -- it's a educated workforce. There were skills there, and there are, clearly, opportunities to expand the production, and whether it's in IT or medical products, to do more there. So, I'm hoping that's what we're going to see, going forward, because I think, from an economic and strategic perspective, it's, clearly, the win-win for everyone.

MR. WEST: Okay. I'm going to close with a question from one of our online viewers, and this concerns the transition to a clean energy economy. And, of course, this gets into kind of solar panels, electric cars, batteries, and many of these things actually are coming from abroad now. So, the supply chain part of this is to what extent are these supply chain limitations going to constrain the -- this transition to a clean energy economy?

MR. MELTZER: Yeah. Yeah. So, you know, potentially, I think the, you know, the administration's looking at this, right? You know, where -- I mean, they're -- they have been focused on some of these issues already. And so, whether it's on batteries or on the various inputs into clean energy, we've already seen, you know, through various Executive Orders and so forth, that there is a close look at this component of it. So, it's absolutely true. I mean, if you think about, you know, various batteries, I mean, you know, they're going to built out into electric vehicles or for energy storage, the critical minerals that go into making sure that these work. I mean, nickel, if you take nickel, for instance, the price of nickel has gone up, I'm not -- you know, some amount, as a result of the war in Russia, right?

So, we see that, you know, these things, these imports, which can really be disruptive, get critically disrupted through these large events. So, it's a challenge, but I think there is an attempt to think carefully about what we can do here, in North America, with allies to ensure, I think, most importantly, that we have other sources of supply, so that we are not sort of constrained and relying on particular countries or one or two suppliers. And I think that's really the key thing, is when we think about resiliency, it's really got to be thought about from a distributed capacity perspective, and that's got to be both at a firm level, but also geographically, as well.

MR. WEST: Okay. Josh, Rachel, thank you very much for sharing your thoughts with us. Our in-house audience and our virtual audience, thank you very much for your interest. Thank you for tuning in.

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Expires: November 30, 2024