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PUBLIC HEARING ON PROMOTING SUPPLY CHAIN RESILIENCE

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FRIDAY
MAY 3, 2024

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The Hearing was convened in the Main Hearing Room, International Trade Commission, 500 E Street SW, Washington, D.C., at 10:00 a.m. ET, Victor Ban, Chair, presiding.

PRESENT

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WILLIAM MILLER, Director for Industrial Trade Policy, Office of the U.S. Trade Representative; Panel Chair
KEN SCHAGRIN, Assistant U.S. Trade Representative for Services and Investments, Office of the U.S. Trade Representative; Panel Chair
ALLISON SMITH, Deputy Assistant U.S. Trade Representative for the Environment and Natural Resources, Office of the U.S. Trade Representative; Panel Chair
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JAMES CRAMER, The Supply Chain Center, International Trade Administration, Department of Commerce

CORA DICKSON, Office of Energy and Environmental Industries, Department of Commerce
KRISTEN ENGBLOM, Digital Policy Specialist, International Trade Administration, Department of Commerce
JON GROSSHANS, Senior Advisor, Environmental Protection Agency
JACOB HENDERSON, International Economist, Department of the Treasury
ADAM KOTKIN, Bureau of Cyberspace and Digital Policy, Department of State
STEFANIE MERCHANT, Aerospace and Defense International Trade Specialist, International Trade Administration, Department of Commerce
BONNIE RESNICK, International Economist, Department of the Treasury

PANEL SEVEN

AMANDA HUROWITZ, Mighty Earth
AARON MINTZES, Earthworks
MELINDA ST. LOUIS, Public Citizen

PANEL EIGHT

FRED FISCHER, National Electrical Manufacturers Association (NEMA)
JIANG LIM, Graphjet Technology
VANESSA P. SCIARRA, American Clean Power Association
VERONIKA SHIME, National Mining Association
JOHN SMIRNOW, Polysilicon Coalition
ANDREW WILLIAMS, Canadian Solar US Module Manufacturing Corporation

PANEL NINE

CHRISTOPHER CARNEY, FDP Virginia Inc.
KIMBERLY DANIELS, Mercantile Logistics & International Trade, Inc.
WHITNEY WINTER, Meco Corporation
DR. FLORIAN KOHL, Olin Corporation
ANNE SHYBUNKO-MOORE, Aerospace Industries Association
JASON WADE, UAW

PANEL TEN

KATIE ARRINGTON, Exiger
GREGORY BIRD, Global Coalition for Efficient Logistics
BECKY RASDALL, International Dairy Foods Association (IDFA)
TONY RICE, National Milk Producers Federation and U.S. Dairy Export Council
BRIAN SCARPELLI, ACT The App Association

PANEL ELEVEN

ED BRZYTWA, Consumer Technology Association
KYLE JOHNSON, Information Technology Industry Council
JONATHAN MCHALE, Computer & Communications Industry Association
JOSEPH WHITLOCK, Global Data Alliance/BSA Software Alliance

PANEL TWELVE

JASON BERNSTEIN, American Chemistry Council
CHRISTINE BLISS, Coalition of Services Industries
PETER MAYBARDUK, Public Citizen

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P-R-O-C-E-E-D-I-N-G-S

10:03 a.m.

MR. BAN: Good morning, everyone, and welcome to the second and final day of this hearing on Promoting Supply Chain Resiliency in Washington convened by the Office of the United States Trade Representative. I'm Victor Ban, special counsel at USTR. And on behalf of all of my USTR and interagency colleagues participating in this hearing, I want to first thank you all for taking the time to participate in this public comment process. We enjoyed very much hearing from a wide range of stakeholders yesterday, and we're looking forward to today's panels and to continuing the discussions.

Just a very few brief administrative announcements before we begin and turn things over to Panel 7. First, we received a few inquiries yesterday about whether the panels are being recorded. The answer is, no, we are not recording. But as noted yesterday, we do plan to release a transcript as soon as possible after the hearing, and we'll post it on USTR's supply chain resilience web page, so please look out for that.

The agenda for today is posted on the USTR website. Just go to USTR.gov and, under trade topics, you'll see a tab for supply chain resilience and the agenda is linked off that page.

Like yesterday, for each panel, the run of show is that we'll first receive all testimony from witnesses in the order shown on the agenda, and this will ensure that each witness can speak of the allotted five minutes each. We'll do that before we move on to questions from the USG panel. In responding to questions, witnesses, please do try to be concise so that we can proceed through our questions and hear from all witnesses.

And with that, I'll give the floor to the chair of Panel 7, Allison Smith.

PANEL CHAIR SMITH: Great. Thank you very much, Victor. And good morning. We'll go ahead and get started with Panel 7 now. I'm Allison Smith, Deputy Assistant USTR for Environment and Natural Resources, and I will be chairing this panel. We're looking forward to hearing from our three stakeholders today about environmental priorities for supply chain resiliency.

As a reminder, each witness should introduce themselves before they begin, and my interagency colleagues will introduce themselves when they ask their first question.

Two quick process notes just for the record. Two witnesses, I understand, are testifying for Public Citizen on Panel 7 and Panel 12 respectively. On this panel, Panel 7, Ms. St. Louis will take three minutes for her opening remarks, reserving two minutes for her colleague on Panel 12. This panel will last 40 minutes, concluding at 10:45.

I wanted to also note another process matter. Mr. Mintzes had a last-minute scheduling conflict and will be joining us virtually this morning, so we look forward to your testimony, as well.

We still stay in alphabetical order for the testimony this morning, and we can go ahead and get started with Ms. Hurowitz. Thank you.

MS. HUROWITZ: Hi. Great. It's working. Good morning. Thank you so much for having me and my colleagues speak to you today. My name is Amanda Hurowitz. I am a senior director at Mighty Earth, an organization that works around the world to protect and tackle some of the biggest challenges facing our planet, fighting deforestation and decarbonizing heavy industry, along with conserving and restoring ecosystems. I manage our campaigns across Africa and Asia.

Kabaena, an island off the southwest coast of Sulawesi, Indonesia, is home to the Bajau people. The Bajau are considered the last sea nomads and live across the islands and waters of Southeast Asia and the Pacific. The Bajau are renowned freedivers who can stay below the surface of the water for up to ten minutes on a single breath, foraging for sea cucumbers, seaweed, and other sea life. Their culture is based around the ocean, and some Bajau are born and spend their entire life at sea. In the case of the villages of Kabaena, they live on shore on stilted houses above the water and rely on the ocean for their sustenance and livelihoods.

In 2006, deposits of nickel were found on Kabaena. Now, across the island, there are 25 nickel-mining concessions, nine of them active. The concessions cause deforestation and significant impacts on the health and livelihoods of the Bajau.

Recently, researchers from the Indonesian NGO Satya Bumi surveyed the inhabitants of six villages. They photographed very visible impacts of nickel mining on the island, deforested mountainsides, brown cloudy water in the ocean near the villages, and a house flooded with the same brown cloudy water.

The impact on the Bajau people who rely on the sea for their livelihoods is profound. The contaminated water around the island means they can no longer farm seaweed. It means they have to go much further offshore to reach their fishing grounds where yields are lower, pushing them into debt. Even more tragic, the newly brown waters have led to the drowning of three Bajau children in the Baliara village in the last decade. The deaths were attributed to the lack of visibility inhabiting their rescue because they weren't taught to swim at an early age due to the muddy water. In other Bajau communities, the water is still clear and children master diving by the age of three.

The researchers also documented itchiness, festering wounds, and blistering skin conditions from the water.

Two months ago, on March 26th, in Baliara, a major flood occurred only after half an hour of rain fall. Residents attributed the flooding to a nickel concession operated by

Indonesia state-owned mining company. In other villages, some Bajau reported taking mining or construction jobs because fishing was no longer an option. Seventy-one percent of those surveyed reported impacts on their health, 83 reported disruptions to their livelihoods, and 94 reported environmental damages.

Interviews found no meaningful consultation had taken place on the impacts of mining. Furthermore, the company has promised the people of Kabaena certain compensations. Yet, in reality, what they received was inadequate.

Other findings included reports of mines illegally using a community port for its jetty, while other mines have been illegally clearing protected areas. Mighty Earth's own research shows about 800 hectares of forest cleared without the necessary permits, making it likely illegal.

The human rights and health impacts of Kabaena are particularly severe for a culture so reliant on the water. As Indonesia invests more and more on nickel mining, the same health, environmental, and cultural impacts will undoubtedly affect more people, something the government has not seriously assessed. Not only do the people of Kabaena deserve justice and clean water, but their situation is a stark reminder of the destruction that unregulated mining can cause to communities and ecosystems.

It's clear that, to meet our climate goals, we must transition to electric vehicles. EVs are more efficient than internal combustion engines, and they will be even better as we green the grid. Extraction is not the only answer to obtain the materials we need. To help lower the need for mining, we should set ambitious recycling targets and also deploy smarter transportation planning. But for those materials that need to be extracted, and there will be more and more, the harms faced by those in Kabaena exemplify many of our concerns.

Ultimately, wherever minerals are

mined, the standards must be raised and companies must clean up their supply chains. The initiative for responsible mining assurance, a standard with equal governments from the private sector, communities, civil society, and workers offers a way forward. The problem of unsustainable nickel is already acute in Indonesia, but these high standards must apply everywhere around the world.

We'd welcome the opportunity to meet with USTR and others in the U.S. government to discuss in more detail how to ensure environmental harms like those experienced by the Bajau are minimized in critical mineral supply chains, making them more resilient for all. And we stand ready to assist in any way we can to work towards this quite necessary just transition. Thank you so much for your time.

PANEL CHAIR SMITH: Thank you very much. I really appreciate it. Turning now online to Mr. Mintzes for his testimony.

MR. MINTZES: Thank you so much, Ms.

Smith. And thank you for the opportunity to testify before you. My name is -- thank you also for accommodating me, allowing me to testify online today. I do really appreciate that.

My name is Aaron Mintzes. I'm Senior Policy Counsel with Earthworks. Earthworks is a national organization, although we do also offer it internationally. And we work to protect communities in the environment from the impacts of mineral extraction while also promoting just equitable and sustainable solutions, including some of the few that I'll talk about today. So I really appreciate this opportunity.

I'd like to speak briefly but mainly about metals and the mineral supply chain and what I hope can be USTR's prominent role in ensuring that, whether through free trade agreements or through interagency government coordination, we can bring better due diligence, human rights and environmental due diligence, to the mineral supply chain.

If we can, and I'll talk about tools

in which we can make that happen, then we'll accomplish the goals of both de-risking the supply chain from, say, foreign entities of concern or other risks like money laundering or human trafficking or the environmental degradation we heard about before, but also de-risk for investors, as well, and also help solve some of the geopolitical considerations that we've been hearing quite a bit about.

So just quickly then, I'd like to also associate myself with the comments we just heard earlier from Mighty Earth and the subsequent comments we're going to hear from my colleague, Ms. St. Louis, at Public Citizen. In brief response to question three, how does USTR bring about a race to the top, I would like to urge the USTR to look toward the United States National Action Plan for Responsible Business Conduct that was just released by our own State Department. The U.S. National Action Plan sets the expectations for business conduct for human rights, due diligence across their supply chains, including the mineral supply chains. And the mandate, I think, the environmental sustainability mandate in the State Department's National Action Plan to USTR includes pressuring trade partners to continuously reassess domestic policies to ensure they provide for high levels of environmental protection.

So let me bring up, this is partly in relation then to question three, that race to the top, U.S. NAP Responsible Business Conduct, and bringing human rights and environmental due diligence to the mineral supply chain. That can be accomplished through USTR's participation in the FACA, the federal advisory committee on this, and there are other related tools that I wanted to just bring about, too, quickly while I just have a couple of minutes.

In relation to question three and question four, various examples of where this is beginning to work, especially on the battery mineral supply chain, just noting that today the Treasury Department came out with their final

Foreign Entity of Concern rule for the electric vehicle battery supply chain. They're anticipating that OEMs are going to begin to trace and track their minerals by 2027, if not sooner. That's because the European Union has already mandated the same thing. Their battery directive, the Critical Raw Materials Act, and their sustainability due diligence directive is going to impose a tracking and tracing system across many of the critical mineral supply chains that USTR will be focusing on.

In addition to that, as USTR looks to make agreements or secure the supply chain around the world. As Ms. Hurowitz indicated, the Initiative for Responsible Mining Assurance is an important voluntary standard that other governments might be able to adopt. Extractive Industries Transparency Initiative (EITI) and beneficial ownership information practices that we often see through EITI and the OECD guidance for high-risk and conflict-affected areas.

These are part of the tools available

to USTR as they're negotiating their agreements. It's going to be found through the FACA NAP process, and so I would encourage USTR to explore some of these options with us. And like Ms. Hurowitz said, we'd be pleased to work with USTR on developing some of these ideas.

Thank you so much.

PANEL CHAIR SMITH: Thank you very much. Now turning to Ms. St. Louis, who has three minutes for her opening remarks.

MS. ST. LOUIS: Thank you. My name is Melinda St. Louis, and I'm representing the consumer organization Public Citizen, which has helped to convene a broad table of organizations concerned about the push for critical minerals agreements, or CMAs, in the context of the IRA's 30D tax credit. And alongside my co-panelists this morning and 39 organizations, including the Sierra Club, NRDC, Trade Justice Education Fund, the Presbyterian Church, United Electrical Workers, we have submitted recommendations with respect to any CMAs the administration may contemplate so that we can prioritize meeting the climate, job creation, and sustainable development goals of the U.S. and our trading partners while also advancing a race to the top in human rights.

So I'll just share a quick overview of our more detailed recommendations. First, we must explore all options to reducing the need for continued mineral extraction through demand reduction and meeting demand to the greatest extent possible through re-use, refurbishment, and recycling.

Second, we must support job creation and sustainable development in the countries and local communities where minerals are mined and processed, and this includes financial and technical support and considering how local content rules, rules of origin, et cetera, can aid in this goal. And we must reassert countries' right to regulate foreign investors in their territories and use all opportunities to further eliminate investor-state dispute settlement mechanisms where they still exist.

Third, as explained by my colleagues, we must ensure free, prior, and informed consent for any mineral extraction and require parties to adopt and implement measures necessary to fulfill their obligations under the UN Declaration of the Rights of Indigenous People and the ILO's Indigenous and Tribal Peoples Convention.

Fourth, we must ensure that the rights of workers within mineral supply chains are protected through binding and enforceable standards to require all parties to fulfill obligations set within the ILO's core conventions, as well as standards based on the ILO's Safety and Health in Mines Convention, and others.

Fifth, any CMA must include binding and enforceable environmental standards that require parties to fulfill their obligations under multilateral environmental agreements, and we urge inclusion of time-bound commitments to minimize greenhouse gas emissions and other forms of pollution during smelting and refining operations. And for all these binding obligations, we must include effective mechanisms for enforcement. Prior to any agreement taking effect, the U.S. must offer capacity building and technical assistance to ensure a country's ability to effectively implement and maintain their obligations, and ongoing enforcement tools should be designed to guarantee the charges of rights violations coming from affected communities receive serious and quick consideration and that the penalties for violations are aimed at the offending companies.

And, finally, we urge any new CMA to not follow the closed and rushed process of the U.S.-Japan CMA, but, instead, be developed through transparent and participatory processes, including notice to and consultation with Congress before negotiations begin, publication of the text of U.S. proposals with public comment, and publication of updated country positions throughout the negotiating process.

Thank you.

PANEL CHAIR SMITH: Great. Thank you very much. We really appreciate it. We will turn now to questions for the witnesses, and I would, you know, we want to have a constructive dialogue today. Knowing we have slightly limited time, I'm very interested to hear your responses but hoping that there's time for each panelist, in some instances, to answer the questions.

So thank you very much. I would note that all three witnesses focus your remarks on the critical mineral supply chain, which is, of course, very important to the work that we're doing now. And you all spoke in one way or another about the intersection of building out the critical mineral supply chain and a just transition.

And so I will start with Ms. Hurowitz. If you could talk more about what you see as -- and you offered some suggestions in your opening testimony -- what you see as an ideal transition, an ideal just transition and what that might look like for some of the communities, including the one that you highlighted. Thank you.

MS. HUROWITZ: Yes, of course. Thanks for that question. I mean, I think, again, we need to get rid of fossil fuel engines. We need this transition. And so I just want to make sure everyone, like, we are talking about some of the issues because we don't want to repeat the mistakes of the past, but we have to acknowledge we need to make this transition.

And while recycling and, you know, circular economies are incredibly important and we need to put as much emphasis on that as possible, it's not going to solve all our problems. We are going to have to mine. And the honest thing is mining is dirty. Like, you are destroying top soil to get to what's underneath. With nickel and boxite a precursor for aluminum, often you're doing lateral mining, so the impacts are much more dispersed, whereas traditional mining tends to be a little more contained.

You know, I pointed to IRMA for a

reason. It's been negotiated over the past, I don't know, probably decade. And like I said, it is a platform that's been agreed to by all of the relevant stakeholders, and so it includes these standards that are all being done by a mine somewhere in the world. It's just trying to take best practice and to set the bar higher.

And so I'd really encourage the U.S. government to look at that as a guide. It doesn't mean, you know every mine everywhere has to be certified by IRMA, but I think it's an incredible and powerful tool for us to look to. As we acknowledge we need to extract these materials, we also need to do so in a way that reduces harm.

One of the things that I like about IRMA is they don't talk about mining sustainably. They talk about mining more responsibly, and that's what we need to do and that's why we need to use every tool at our disposal, as the U.S. government who's, you know, a huge consumer of these electric vehicles, to do so. Thanks.

PANEL CHAIR SMITH: Ms. St. Louis, if you'd like to add.

MS. ST. LOUIS: Yes. I mean, I think I would associate with what Ms. Hurowitz said. The division of Public Citizen that I work for, Global Trade Watch, we monitor U.S. trade agreements and have for decades. And, you know, and I think the 30D tax credit created kind of out of the blue kind of this push now for critical minerals agreements because of the way that the legislation was written, you know, that countries with free trade agreements could potentially, you know, qualify for the tax credit. And I think that it's really important as we're considering that that that not just be a rubber stamp because, you know, we know that countries, even before the ink was dry on the inflation reduction act, they were complaining about potential trade violations, which we consider to be, you know, unfortunately, many of these trade deals in the WTO and many of the rules are outdated. They were negotiated long before countries were considering climate change as a priority, and so we want our climate goals and our goals to respect human rights and, you know, throughout supply chains to be the most important.

So I think, as we're thinking about these critical minerals agreements, you know, we're not just talking about market access, we're talking about actually using U.S. taxpayer dollars to subsidize the imports of, you know, of these -- yes, that's okay -- to subsidize these imports. And so, therefore, I feel like we have a huge responsibility to incorporate these standards in a binding and enforceable way. And I think IRMA is a great place to look, but those are voluntary standards and the United States, in negotiating these agreements to the extent that we do, has leverage to, you know, to ensure that the mining does adhere to a race to the top. And if we don't, then, in many ways, we may be subsidizing dirty and dangerous practices that are harming communities.

And, you know, we don't want to see, you know, kind of looking to the past of this, you know, kind of the bad old days of extractive industries kind of with fossil fuels, et cetera, where, I mean, you're just going in and really just taking from communities around the world, leaving devastation in their wake. And we certainly wouldn't want our green transition to be on the backs of that, you know, that kind of devastation. And, you know, we're seeing it happening right now, so that's why we think it's really critical that, not only do we include the binding standards and that we go, you know, as high as possible, because, again, we're subsidizing the imports of this, but that we have really meaningful enforcement mechanisms because we know the standards are only as good as the enforcement mechanisms and that the rapid response mechanism that's included in the U.S.-Mexico-Canada agreement on labor we think is a good place to look because it's facility specific, because it requires movement immediately.

In past U.S. free trade agreements, we were quite critical of the labor environmental chapters because they required this, like, pattern of abuse to be shown over time, and we really weren't seeing impacts that were improved on the ground. And I think we have seen some really positive movement, you know, specifically in the labor sector in Mexico around the rapid response mechanism. And we congratulate USTR for the way that they have been enforcing that, and so I think that could be a basis to think about how you have facility-specific enforcement that's quick and swift and certain for all of these standards.

And I just want to underline one more time the free prior and informed consent for Indigenous communities, given that, you know, it seems like, you know, it's half of minerals are actually within very close of Indigenous communities in the U.S. and around the world, and so we have to really be taking that into account.

PANEL CHAIR SMITH: Thank you very much for that. Mr. Mintzes, if you have anything to add.

MR. MINTZES: Thank you very much. I don't have much more to add. I agree, actually, with everything that we've been saying before. There really is one standard. It is free prior and informed consent, and the U.S. Trade Representative can condition all of our agreements upon that standard as it's brought about in the United Nations Declaration on the Rights of Indigenous Peoples. It also can be brought about through various -- so, for example, if you're going next month to the OECD gathering in Paris, there will be a workshop on how free prior and informed consent actually happens in practice with mining companies. So we urge USTR to look there, please.

PANEL CHAIR SMITH: Thank you very much. I am going to turn it over to one of my colleagues, I think. Mr. Grosshans, if you want to get us started.

MR. GROSSHANS: Sure. Good morning. Jon Grosshans, Senior Advisor of the U.S. Environmental Protection Agency working on supply chains, including critical minerals. Thank you for the testimony this morning. We've already covered a lot of ground, and I would love to dive a little deeper into some of the topics that all three panelists spoke about.

One of the topics that was spoken about frequently was the race to the top, rather than the race to the bottom. I'd love to offer this to all the panelists to offer up a little bit more in-depth comments about how U.S. companies and the U.S. government can pursue supply chain resilience while also supporting ESG standards that encourage a rise to the top, rather than a race to the bottom.

MS. HUROWITZ: Would you like me to go first?

MR. GROSSHANS: If you want to go first, that would be great.

MS. HUROWITZ: Yes. I mean, what I

would say is we want to raise standards around the world, and so I brought you a story from Indonesia. I imagine we could find similar stories here in the U.S. And so I would say some of the voluntary initiatives we're looking at, like IRMA, they should apply to U.S. companies just as much as Indonesian companies. And I think they would actually help U.S. companies because, for example, the FPIC, the free informed prior consent provisions in, you know, how we do business here is not as stringent as it is in IRMA. I think IRMA would provide our U.S. companies a pathway forward to do this, and these projects, you know, there are going to be communities that are going to be upset. Again, we're trying to reduce harm, and I think provisions like this make it, you know, if companies really do follow these standards, it makes it more difficult for civil society to criticize because they are following the most stringent standards out there.

And so I really would point to it as

a pathway forward for business here and abroad and, again, a way to make sure that we're raising labor standards, we're raising environmental standards across the board so we all benefit from this transition.

MS. ST. LOUIS: Yes. I appreciate the question, too, and I think I would reiterate that, to the extent that the U.S. is negotiating critical minerals agreements, if that is the -- you know, I think that is potentially an opportunity to help push for the race to the top if we are able to include binding and enforceable standards in that. If the battery is coming from those countries are going to have access to, not just access to the market but be subsidized, then, therefore, they need to raise standards, but that we know from -- we also have partners all around the globe who are working in these countries, and there are gaps in terms of -- we need to support technology transfer for, you know, for renewable energies and technologies so that they can actually clean up the supply chain or clean up the production and the smelting and the refinement. We need to provide the funds and knowhow to help, but then we need to -- and put the obligations on the companies, you know, as Amanda said, and to ensure that we are not just opening kind of the gateways for a potential race to the bottom.

I'm concerned that this could become a race to the bottom. I really am concerned. You know, we here all the around the globe of really horrendous examples of mining impacting Indigenous communities, and then, when there are responses from the communities and the government tries to respond, then they actually can be attacked through investor-state dispute settlement where the company can then sue the government for saying you passed an environmental regulation now and now that's going to affect my profits, and so we are going to actually seek billions in compensation. We've seen this happen, and so that's why I want to just underline the importance that we think it's great that the Biden administration is no longer seeking these extreme corporate rights in trade agreements, but we have these existing agreements that we need to address this in.

So I think there's a number of ways, one, to ensure that our trade rules do no harm and then, on the other hand, try to use them as a way to actually increase and encourage this race to the top. And, you know, I think another really important element which I mentioned right at the end is, you know, just the process through which we negotiate these agreements. We've been calling for a long time for transparency and participation, making sure that when we choose partners that we're negotiating these agreements with that they understand what the standards are going to need to be, that we choose those partners carefully in consultation with stakeholders with those who have relationships with civil society in those countries, and that we see the draft proposals, that we don't rush into it, you know. And I would say that I think the U.S.-Japan deal was not an example for that and that we would expect to see a much broader consultation, transparent, and participatory process to be able to get to these standards that we've talked about.

MR. GROSSHANS: Thank you, Ms. St. Louis and Ms. Hurowitz. Mr. Mintzes, do you want to respond to the question?

MR. MINTZES: Jon, it's so good to hear from you again. Thank you so much for that question. It was really good. I wanted to make two quick points, one about really what I think of as circular economy. That is, we're sourcing metals, we're using trade policy to source metals from things other than brand new mines, thereby reducing that demand.

And so I think, as my colleagues have mentioned, we really want to make sure that we need understand what the components of a critical minerals agreement or a free trade agreement might be. There could be tremendous advantages, for example, with negotiating one with our

European partners. And I know that they, the Europeans, probably have been urging you to join that, and I just say that because, while I would really love, like, Melinda and Amanda to be able to go over with a fine-tooth comb every part of that free trade agreement, it's really important for that public transparency to be a part of this process. It's important for USTR, I believe, to know that the U.S. government and just our just transition could benefit greatly from some of the policies we're seeing in Europe with respect to, say, their e-waste directive and their battery directive and their corporate sustainability due diligence directive.

And so, as Ms. Hurowitz and Ms. St. Louis have said, with respect to the mining and the mineral processing, voluntary standards like the Initiative for Responsible Mining Assurance, will help with free prior and informed consent. USTR can negotiate that as a condition of part of any kinds of agreements, but also the United States can benefit greatly by opening up trade routes for alternative sources of metals that aren't necessarily from new mines, like some recycled materials or reused or refurbished materials. And because some of the European policies have actually a little bit further along than we are here in the United States, there could be some benefits to making sure that we are both rising to the top and de-risking our supply chain with transparent agreements that have recycling standards, labor standards, environmental standards, like IRMA and FPIC and so on.

So thank you, Jon. Let me pause there.

PANEL CHAIR SMITH: Thank you all very much. Turning now to my colleague, Mr. Cramer.

MR. CRAMER: Hi. Thanks, Allison. I'm Jim Cramer. I'm from the Department of Commerce's Supply Chain Center. Thank you, everybody, for testifying today and for submitting your comments before this testimony.

I'm curious, and this is almost sort

of a blue-sky thinking exercise or question. I think a number of you and perhaps all of you spoke about the need for capacity building of foreign governments to help them enforce environmental rules and a possible role for the U.S. government in doing so. Are there mechanisms for capacity building of the foreign environmental ministries or enforcement arms down to the police, et cetera, that the U.S. government has not, that you've seen the U.S. government not taking. And I'm coming at this -- I think most of us are probably aware of a lot of the work the USAID does and also the Trade Development Authority, but, sort of blue-sky thinking, what is the U.S. government missing in terms of doing that kind of capacity building and what kind of recommendations might you make? Thank you.

MS. HUROWITZ: Yes. So, one, that's a really, really, I think, important question. I talked about illegality, and so I think there's a question how do we address that.

I don't know if it's a lack of technical knowledge. I think it's more political will, and so I think it may not be, you know, specific technical knowledge that needs to be passed, though I'm sure there are gaps where, you know, we could augment what is already happening. I really think it's an issue of political will and demand.

To give you just a different example. So, as opposed to critical supply chains, let's talk about palm oil, o from a similar place in Indonesia. Deforestation for palm oil has declined something, like, 90 percent. I mean, this was something you would see, like, orangutans in forests -- and, you know, it still happens -- being cut down. But Indonesia and Southeast Asia in general has made dramatic progress. How have they done this? They were not consuming all of the palm oil. The palm oil was going to Europe, it was going to the U.S., it was going to other parts of the world. And investors, consumers, and traders realized they would not be able to sell their products if they did not meet certain sustainability standards, and guess what? The industry figured out how to make itself more transparent and how to stop deforestation.

And so I really think that this is a will, political will issue and demand issue, as opposed to specific technical capacities.

MR. CRAMER: And just in terms of follow up -- sorry. I apologize. When you're talking about political will, is that within the U.S. government or sort of like the United States in general?

MS. HUROWITZ: I think it's actually within the countries we're talking about, and so I think the U.S. can help these countries find the political will to enforce their laws. I mean, I'm sure that there are laws that can be strengthened. Again, I'm sure there are technical capacities that could be passed on. But I think a lot of these countries around the world know how to enforce their laws. The issue is actually doing that enforcement and making sure that they have the political buy-in. And, again, that could come from the private sector but that can also come from companies that are buying their stuff.

You know, Indonesia -- I know we're using it as an example. I don't mean to pick on Indonesia. I think Indonesia has done, I mean, if you look at Indonesia's deforestation rate, it has gone down dramatically. Indonesia has solved intractable problems, and I think we can help countries like Indonesia continue to solve these intractable problems, especially when the materials they're producing, whether it's soft commodities or hard commodities, are being exported to the global marketplace.

MS. ST. LOUIS: Well, and I guess I would just add, you know, we have to create, I think the responsibility of governments and the U.S. government is to create the incentives and the potential penalties for companies that are trying to cut corners as cheaply as possible, and we know that a lot of governments, they would like to be able to protect their populations, but they're trying to get investment. And if the competition is with a lower standard, lower place where companies can get a better profit margin, that's where they're going to go, unless there are requirements, you know, if they feel pressure by the consumers. But I think when you're talking about something as granular as supply chains, it's really hard to, you know, for consumers of electric vehicles to be able to mobilize around a nickel mine in Indonesia. |And so, you know, I think it is the responsibility of our government to create those incentives.

But I would also say that I think, from the conversations we've had with civil society organizations and development-focused organizations in a number of developing countries, I mean, there is a huge resource gap, too, in terms of financing and, well, just everything related to the green transition. And I want to, you know, one more time say that technology transfer is also a really important part of that, and I don't think that our government, that we have done a great job in that regard in actually looking at, you know, the IP around some of these technologies. They're protected under the TRIPS Agreement and, you know, there's been talk of having a waiver of the TRIPS Agreement for green technologies to be able to, you know, to move in some of these directions.

So I think there are a lot of tools that we need to be willing to look at in the trade tool kit, one, to, as I mentioned, increase and provide the climate finance and enforcement that's needed, as well as getting some of the rules out of the way that are actually impeding the transition for some of those countries.

MR. CRAMER: Mr. Mintzes, I'm not sure if you had anything to add or happy to have it.

MR. MINTZES: Maybe just 20 seconds if I can. I know you're aware of most of the mechanisms that are out there through the

Minerals Security Partnership in USAID and EXIM Bank for example. Since we were talking about Indonesia and capacity building, I heard from a delegation of Indonesians who were sent here to the United States with the State Department just yesterday and the capacity building they needed -- these were public health professionals who service communities who are right next to impacted by tin and nickel mining in Indonesia complaining mostly of respiratory health problems but also, for example, yes, a lot of respiratory, but also a lot of accidents, the worker deaths and accidents at the tin and nickel mines and respiratory health problems. The challenges, they don't have access to or any data to, they're not allowed to go there to investigate what's happening or to make recommendations.

And so I feel like what's important is, honestly, as USTR and the U.S. government is trying to invest in capacity, it may sound -- it's never a bad idea, obviously, to help with non-government organizations' capacity naturally, but also to help vest in the public health sectors, as well as in various gender-specific protections, too.

MR. CRAMER: All right. Thank you all. Oh, please.

MS. HUROWITZ: Yes, just one more thought, I think building on what Mr. Mintzes was saying. I mean, I do think there are places where the U.S. can be helpful, and so, for example, decarbonization and technology transfer there and technical assistance there. When we're talking about refining and smelting, often this is happening with captive plants. And, unfortunately, in the case I've described in Indonesia, it's captive coal plants. There's something like an 8 gigawatt build-out for refining nickel. We're talking just like mind-boggling.

And so the U.S. has embarked on something called the Just Energy Transition Partnership. This, for the moment, only applies to the power sector, not the industrial sector.

And so I really think, you know, how do you, on these remote islands, how do you process this material? I think we have technology and we have knowhow that we may be able to help countries do this in a way that is more climate-friendly. And so just to give one specific example. Thank you.

MR. CRAMER: Thank you all.

PANEL CHAIR SMITH: Thank you very much. The time has flown. It is already 10:45. I want to ask one rapid-fire question very quickly, keeping us on track but a closing question. We have spoken largely about critical mineral supply chains this morning. It has been extremely helpful. We have really appreciated the focus there. In the most rapid-fire way possible, if there are any other areas in the supply chain, environment supply chain space that you wanted to highlight, just saying the subject matter, top-line name, I think we would appreciate that.

And I will hand it to you, Ms. Hurowitz, to start.

MS. HUROWITZ: I mean, I would say we are looking at illegal deforestation around the world, and so anything that the U.S. government can do to make sure that products that come into the U.S. are not connected to deforestation in general, in particular illegal deforestation, seems like it would make sense. There's the Lacy Act for forestry products, but there's a lot of products that, you know, you cut down the trees and then you plant something or you mine something, and so I think that's just another place that we should be looking. So thank you.

PANEL CHAIR SMITH: Thank you. Ms. St. Louis.

MS. ST. LOUIS: I mean, I would say that a lot of my comments are relevant to all of our supply chains, you know, I think not just critical minerals but looking at, you know, I mean, my colleague later this afternoon will talk about our medicine supply chains and medical devices. Obviously, the COVID pandemic really highlighted areas where we need more supply chain resilience around many of those elements.

But I think across the board, not just in renewable, but we have the responsibility in any of our trade agreements with any products and supply chains to ensure that we are encouraging a race to the top and not the bottom, which, unfortunately, I think, in the past, the trade agreements have not done that and I think that the Biden administration's approach has been better to not be seeking kind of the traditional FTAs. We consider that to be a positive step forward, and I would encourage kind of throughout thinking about how our investment policies, particularly in existing agreements, have undermined some of the abilities to protect the environment and public health throughout supply chains.

PANEL CHAIR SMITH: Thank you. Mr. Mintzes.

MR. MINTZES: No, thank you. This has been a fun rapid fire, but I think I wanted to just focus on mineral supply chains. I just don't want USTR to miss that. I think we're oversupplied for lithium, for example, and I think most of the important work that most people are missing is that, by the end, maybe not the end of this decade but by the end of the next decade, most of the metals we're going to get aren't going to come from mines. They'll come from recycled or refurbished or reused materials, and the trade in that is where the future actually is. It's not in getting things out of the ground.

PANEL CHAIR SMITH: Thank you all for your testimony and for your time this morning. Thank you to my colleagues for your thoughtful questions, as well. We really appreciate it.

MR. BURCH: Would the room please come to order? We're ready to begin Panel 8.

PANEL CHAIR MILLER: Good morning, everyone. My name is William Miller. I'm the Director for Industrial Trade Policy at USTR. I will be chairing this next panel, Panel 8, on clean energy, along with my colleagues, Cora

Dickson from the Department of Commerce and Leo Baunach from Department of Labor.

Just a reminder that each witness should introduce themself before they begin, and my interagency colleagues should introduce themselves when they ask their first questions. Let's get started with Mr. Fisher, and then we will proceed in alphabetical order. Each witness will have five minutes for their testimony, so, Mr. Fisher, the floor is yours.

MR. FISCHER: Thank you. My name is Fred Fischer. I am the Managing Director of Global Policy at the National Electrical Manufacturers Association, NEMA for short, where I lead NEMA's work on international trade and supply chain policy. Thank you for the opportunity to appear today and share NEMA's views on promoting supply chain resilience through U.S. trade and investment policy.

NEMA represents the $300 billion U.S. electroindustry with 325 member companies directly employing more than 370,000 American workers in more than 6100 facilities across all 50 states. The electroindustry manufactures goods for the electrical grid, industrial sector, built environment, and mobility sectors. The electroindustry is leading the transition to an all-electric economy and is a key driver of U.S. infrastructure development and future economic growth.

NEMA will be celebrating its 100th anniversary next year, and the industry has come a long way in the last 100 years. NEMA's earliest work set the design and performance standards for electrical wall outlets and electrical plugs that are now ubiquitous throughout North America. Fast-forward to today, and NEMA's latest standard is on vehicle grid bidirectional charging that enables electric vehicles to act as energy storage devices to power external sources, such as homes when the power goes out.

The electroindustry is one of the largest manufacturing industries in the United

States and has one of the most complex international supply chains of any industry with goods classified in 12 harmonized system chapters, 54 tariff headings, 246-digit tariff subheadings, and 767 ten-digit statistical reporting numbers. NEMA members rely on secure, fairly-priced supplies of raw materials and inputs, including intermediate goods for the manufacture of building, industrial, lighting, medical imaging, transportation, utility, and other electrical goods used throughout the nation's public and private infrastructure. These products are sold as finished goods or incorporated as components into other industrial and commercial products.

The electroindustry is the fourth largest U.S. exporter of industrial goods after oil, automotive, and aerospace. The U.S. electroindustry exported $113 billion of goods to 233 markets around the world in 2023. Approximately 40 percent of U.S.-produced electrical goods are exported with the leading export markets being Mexico, Canada, and China.

The electroindustry is the second-largest U.S. importer of industrial goods after automotive. The U.S. electroindustry imported $245 billion of goods from 231 economies around the world in 2023. Approximately 50 percent of U.S. consumption of electrical goods is imported with the leading import sources being Mexico, China, and Japan.

The Section 301 tariffs have significantly impacted the electroindustry, causing a shift in imports away from China to more diversified sourcing, including additional domestic production. In 2019, Mexico surpassed China as the industry's leading import source, as imports from China peaked in 2018 and continued to decline. China's share of U.S. electroindustry imports has decreased subsequently since 2018, falling from 28 percent to 18 percent in 2023.

Since 2019, the electroindustry has been assessed more than $30 billion in Section

301 import duties, mostly on material inputs and intermediate goods used in the production of finished goods. These tariffs have negatively impacted the industry's competitiveness, including its ability to compete globally.

While the industry supports the underlying policy rationale of Section 301, we need to ensure that the Section 301 tariff regime is effectively remedying China's policies and practices of concern, that the tariffs are not doing more harm than good, and that unintended consequences are recognized an addressed sooner rather than later.

NEMA offers the following recommendations to increase supply chain resiliency. USTR should release the statutory four-year review of the Section 301 tariffs without further delay, permanently extend all existing exclusions, open a new exclusion process, and initiative a comprehensive independent fact-finding investigation on the macroeconomic trade and competitiveness impacts of the Section 301 and Section 233 tariffs. The United States should actively promote the adoption of standards, good regulatory practices, and reciprocal conformity assessment regimes as foundational building blocks of supply chain resiliency. USTR should continue to actively eliminate unfair technical barriers to trade whenever and wherever they are encountered. The United States should recommit to negotiating high standard and enforceable bilateral and multilateral and market access trade agreements in close collaboration with business, labor, key stakeholders, and Congress. And, finally, trade policy and domestic policy should be aligned so that they are not in conflict or work across purposes, particularly with respect to domestic content rules.

In conclusion, the electroindustry is growing and benefitting from the administration's energy transition policies and targeted government investments, and the electroindustry is stepping up to meet this moment and this challenge. Since 2020, the electroindustry has initiated 53 new investment projects in the United States valued at more than $12.6 billion, and these new investments include reshore production, new shore production, and expanded R&D facilities. And the industry continues to diversify its global supply chains through near-shoring and friend-shoring.

However, increasing U.S. demand for energy transition goods continues to outpace growing domestic output, leading to an increase in consumption attributable to imports. As a result, building secure and resilient supply chains is more important now than ever. NEMA looks forward to working with USTR, Commerce, and other agencies to further develop these secure and resilient supply chains.

Thank you for the opportunity to appear today. I look forward to answering your questions in the panel discussion.

PANEL CHAIR MILLER: Thank you, Mr. Fischer. Seeing that there's no representative for Graphjet, we're going to -- all right. Perfect. All right. Mr. Lim, the floor is yours whenever you're ready. For Graphjet, yes. The floor is yours. You have five minutes for your testimony.

MR. LIM: Okay. Hi. Good morning, ladies and gentlemen. I'm Jiang Lim from Graphjet Technology. So, basically, we are the producer of green graphite and green graphene based on palm kernel shell.

So we just listed our company on the month of March, so we are based in Malaysia, and we are moving our business into the U.S. So if you all know that U.S. has declared graphite as critical minerals. So, of course, we do know that U.S. has a very good ecosystems about all this tax incentive, all this policies to push for, but the graphite supply chain to grow, especially for the EV markets, especially for E&E --

PANEL CHAIR MILLER: Mr. Lim, can you please pull your mic a little closer?

MR. LIM: Yes. So we are the green graphite producer. Hopefully, we can grow our market together with the U.S. supply chain. And, of course, one of the first questions I would like to address is, across sectors, how does access to capital equipments, manufacturing equipments, and technology support supply chain resilience for U.S. producer? Is there a role for trade and investment policy?

The first thing is that, the good thing is that we try to reduce reliance on imports. Of course, being independent from any supply chains, especially from the PRC -- they have been controlling the world on our materials by 97 percent. I think that, of course, from our point of view, Graphjet's point of view, we do offer solutions for the rest of the world is that we are able to let our customers to de-risk from any countries or any nations trying to monopolize their home market. And coming up from a Malaysian company, we do see a very huge potentials to supply our materials to the U.S. to process our materials from palm kernel shell to graphite and graphene.

And, secondly, to increase the production capacity. So as we all know, the dominant market has been hold by the PRC or any countries outside the U.S. right now. They have been led by this market by a huge margin, and we do see that there's a very huge demand, the discussion has been going on yesterday and today, a huge demand for critical minerals and all, like, coming up from all the way from critical minerals to the battery manufacturers and then to the OEMs and then back to the consumers. So I think that everyone has a very strong ties to want another. So we believe that by increasing our production capacity in the U.S., we can help to address all the downstream problems and for the demands of the graphite and graphene supply chain.

Secondly, what factors are driving supply chains' sourcing decisions? How does trade investment policy and how do companies factor geopolitical risk into global and domestic manufacturing and sourcing decisions? How do companies take into account traceability and transparency considerations in supply chain and sourcing decisions? So, of course, we are a company. We run on profit. And, of course, even from our customers' points of view, our stakeholders, our shareholders, we are profit-driven. So everyone has tried to de-risk. So the first thing is that risk management, companies are recognizing their financial risk impact to the global supply chain.

So as a measure on these uncertainties related to the supply chain on the graphite, not just limited to graphite but other critical minerals, lithium, nickel, and so on, and this solution we can provide you to the supply chains to de-risk, to diversify the business to different kind of suppliers.

And the next thing is that, from our perspective of what drives our decisions on our operation efficiency, and, at first, you know, because of the U.S. -- 18 seconds left. Okay. Competitive advantage and, lastly, investors' expectations, I think all this we have moved together and all this will drive our investment decisions.

So, lastly, just a couple of seconds, investment incentive, PPP, regulatory policies, trade agreements really show we are outside of FTA. We are not part of a BIT. Malaysia has got TIFA with the U.S. government. Hopefully, we have more trade agreements going on between the Malaysia, Southeast Asian countries, so I believe, I hope that the U.S. government will expand the scope beyond just from the 80 countries to more countries to attract more investors to the U.S. to strengthen the supply chains. Thank you.

PANEL CHAIR MILLER: Thank you, Mr. Lim. Ms. Sciarra.

MS. SCIARRA: Good morning. My name is Vanessa Sciarra, and I serve as the Vice President for Trade International Competitiveness at the American Clean Power Association. We refer to that as ACP.

ACP is the largest trade association representing multiple renewable energy technologies in the country. Our association brings together 800 member companies in a national workforce located across all 50 states. ACP members range from the largest domestic producers of clean power to the people who manufacture, finance, build, and manage projects, all working at the utility-scale level to bring clean energy to U.S. consumers.

Our member companies are leading the transformation of the U.S. power grid into a low-cost, reliable, and renewable power system. Representing the solar, wind, storage, and transmission industries, we look forward to collaborating with USTR on the issues of U.S. supply chain resilience for these important sectors of the U.S. economy.

For purposes of today's hearing, I will specifically focus on a discussion of trade tools that can be deployed to provide a secure and resilient supply chain for energy storage batteries and systems. These systems play a critical role in ensuring that solar and wind energy generation is supplied in a consistent manner to grid operators.

Due in large part to the tax incentives contained in the Inflation Reduction Act, or IRA, we are seeing a manufacturing renaissance in the manufacture of clean energy components, a development which we track on the ACP's Investing in America web page. We are particularly pleased to see announced manufacturing capacity in the batteries used for energy storage applications where the current market is dominated by lithium-ion batteries.

However, our industry understands the supply chain challenges inherent in obtaining secure and resilient sources of inputs needed for this type of manufacturing. In order for these battery manufacturing products to be successful in the long-term, significant work will need to be done by both private sector and actors and U.S.-government agencies. This requires assessments of both, determining what inputs can be sourced domestically and under what realistic time frames this can occur, as well as recognizing, to the extent that there are gaps in domestic sourcing, whether we need to work with our allies to bridge those gaps by a means of imported products. It will take a whole-of-government effort to roadmap how the mix of U.S. and non-U.S. sourcing should be incentivized and, when appropriate, be the subject of trade negotiations.

Some excellent work in this area has already been completed by various think tanks, including, for example, work being done by CSIS and the American Leadership Initiative. Both groups have noted that most of the minerals in battery components used in lithium-ion batteries are not found in countries with which the U.S. has existing comprehensive free trade agreements. The U.S. must look to other solutions, particularly sector-specific agreements.

We understand the challenges of these types of sector-specific negotiations, but that does not mean that they are not worthy of consideration. However, in order to move forward with this work, several actions are required. First, robust discussion about what level of congressional involvement in such negotiations means significant engagement with the congressional committees of jurisdiction. Second, the structure of such negotiations will need to be carefully considered whether they are conducted purely on a bilateral basis or in some sort of regional or plurilateral exercise. Third, existing trade templates, such as the USMCA chapters, may not be fit for purpose in this context and new template language will need to be developed. And, finally, with all due respect to other U.S. government agencies, USTR, with its uniquely-qualified staff and deep agency knowledge of trade associations, should play a key role in coordinating interagency policy and leading on execution of this type of agreement.

As a final comment, I would note that not all old ideas are bad and not all new ideas are necessarily good. The challenge for policymakers is to stress-test new ideas to see if they really are moving the needle for stakeholders and to revisit old ideas periodically to see if they can be utilized. This is a tall order, but one that USTR has, historically, carried out on a daily basis.

ACP hopes that this hearing will serve as a start of a more robust and ongoing conversation between agency staff and important stakeholders, like those represented by ACP, as the agency considers how to move forward on this important agenda.

Thank you for your time, and I look forward to your questions.

PANEL CHAIR MILLER: Thank you very much. Ms. Shime, the floor is yours.

MS. SHIME: Thank you. Mining materials are the front-end of the supply chain for most of the named sectors; therefore, NMA appreciates the opportunity to provide comments and testimony today. I'll highlight important issues that are related to international trade policies necessary for a robust U.S. mining industry and domestic policies necessary for a secure supply chain.

As emphasized by Executive Order 14017, it's in the nation's interests to advance sustainable and consistent development of abundant mining resources, fostering economic stability and geopolitical security while expanding market access for U.S. exports. This will position U.S. as a global leader, unlocking substantial economic opportunities. However, we need supporting policies. For trade example, including strict enforcement, long-term time line horizons, no nationalistic language, and investor protections. Investor protections or safeguards, for example, are critically important to the U.S. mining industry, given tremendous up-front capital costs, the lengths of time it takes to realize any return on investment, and the unique factors that drive decision of where to invest, remembering that companies cannot choose where the deposits are. And now the ever-increasing political risk as countries refocus on their own national security. Free trade agreements should require national treatment and incorporate a comprehensive set of safeguards, the absence of which places U.S. mining investment at risk and cedes investment opportunities to China and other countries.

The USTR should also deploy a range of tools to address unfair market mechanisms in China's market dominance. In 1954, the U.S. was only relying on eight mineral commodities and that number has almost doubled now and not because they're not available here. The USTR should take an aggressive trade posture to utilize the full range of trade tools to send a signal that the U.S. is prepared to fully protect U.S. And foreign investments into domestic critical mineral supply chains.

Additionally, while fostering international partnerships is essential, we must exercise costs with our approach to friend-shoring. Over-reliance on friendly nations for mineral supplies will expose us to risks stemming from evolving national strategies and geopolitical shifts. These countries may rightfully decide they need their own resources. Even friendly countries with which we have longstanding relationships are nationalizing commodities. Mexico, right now, for example, and we see both of these happening in Mexico right now, for example, and, unfortunately, protections were left out of USMCA. One would think that official allies with whom we share a border would be the least risky, again emphasizing that our first priority should be to solve our problems domestically.

So turning to domestic policies, to ensure domestic secure supply chains, USTR's role in influencing domestic policy may not have been clear previously. However, several of the panelists in the last two days have already highlighted the interconnectivity between international and domestic policies addressing supply chain resiliency. It's crucial to formulate domestic policies and infrastructure that alleviate unnecessary burdens on mineral production and exports, enhance company competitiveness, and promote global trade.

The administration's well-intended whole-of-government effort would be better utilized, for example, by the creation of a high level minister overseeing governmental efforts to secure mineral supply chains with the realization that mineral policy is now energy, climate, and national security policy, USTR should work alongside other relevant agencies to devote equal attention to evaluate domestic policies, specifically the next five, that exacerbate our supply chain vulnerabilities and provide recommendations for improvements.

Permitting delays. Inefficient prolonged permitting processes contribute to delays and uncertainty, hampering the industry's ability to respond to market demands, exacerbating important dependence and turns investment away.

Secondly, investment funding should not be limited to downstream activities. Recent funding incentives are not reaching the exploration and extraction activities at the front end of the supply chain. IRA's 45 tax credit is an excellent idea; and, yet, Treasury's recent guidance excludes mineral extraction.

Thirdly, ensuring access to federal lands for mineral exploration and development is essential. It's crucial. Mineral withdrawals limit access to these lands, impeding our ability to capitalize on natural resources or domestic resources, leaving us vulnerable to supply chain disruptions.

Providing regulatory certainty is essential for investment. Overhauling the mining law, as recommended by the interagency working group recommendations, would create unnecessary regulatory uncertainty, disrupt operations, deter investment, and increase reliance on imports. The existing system works as intended. It's a land tenure statute to promote mineral exploration and development on federal lands. It's not intended to be an environmental statute. We have separate exhaustive laws, state and federal laws and regulations to ensure responsible operations in the United States.

Lastly, we need to rethink static mineral criticality lists and exclusionary policies. For example, FAST-41 permitting process should not be limited to only critical minerals from the USGS list, and we should not be creating classes of minerals but supporting responsible mineral development equally, not knowing where the future of technology or societal needs will take us.

In conclusion, prioritizing domestic mining is key to achieving mineral and supply chain security. With abundant resources and high standards, the U.S. mining sector can meet rising demand, contributing to economic growth and national security. Strategic trade policy can protect U.S. operations from foreign influence via targeted actual and enforceable agreements. I'm also on ITAC 5, the critical minerals one, so encourage engagement with us on the ITAC 5, as well.

Thank you.

PANEL CHAIR MILLER: Thank you, Ms. Shime. Appreciate it. Mr. Smirnow, please.

MR. SMIRNOW: Thank you. And good morning, Mr. Chairman, members of the panel. Cora, good to see you. It's been a while. My name is John Smirnow, and appearing on behalf of the Polysilicon Coalition. Our members include Hemlock Semiconductor, REC Silicon, and Wacker Chemical Corporation. Collectively, these companies represent all solar-grade and nearly all semiconductor-grade polysilicon manufacturing capacity in the United States.

I would like to highlight three points from our April 22nd comments. First, having a healthy domestic polysilicon industry is essential to America's national security, energy security, and supply chain resilience. Polysilicon is the foundational material in many products that have already received national security designation, including, for example, microprocessors, artificial intelligence chips, and crystalline-based solar modules. The resiliency of these important supply chains is necessarily linked to polysilicon.

U.S. technological leadership and the production of solar- and semiconductor-grade polysilicon are at risk, however, due to China's actions to target and increase its dominance of polysilicon production. At the end of 2023, China reached three million tons of polysilicon production capacity with even more capacity under construction. In contrast, polysilicon production outside of China is approximately 150,000 tons. Total global demand for polysilicon currently stands at approximately 1.5 million tons. Chinese polysilicon production capacity today is, therefore, at least double global demand.

As a result of this massive overcapacity, Chinese polysilicon prices have plummeted to unsustainable levels, and artificially low-priced Chinese polysilicon is now flooding the world. This unfair competitive environment makes it nearly impossible for non-China polysilicon producers to remain competitive and, indeed, threatens the long-term health of U.S. and other non-China polysilicon manufacturers.

Importantly, the facilities that manufacture semiconductor-grade polysilicon depend on high-volume production of solar-grade polysilicon to achieve the necessary economies of scale and capacity utilization rates for this highly capital-intensive manufacturing industry.

We also want to highlight that a resilient U.S. polysilicon industry is essential to the administration's decarbonization goals. The carbon footprint of U.S. and western polysilicon production is approximately half that of Chinese polysilicon manufacturing. In addition, the U.S. Department of Energy has specifically recognized that a robust domestic solar manufacturing sector not only increases supply chain resilience but is also essential to the administration's deployment goals. DOE reports that, to reach the administration's 2035 decarbonization target, the U.S. requires a minimum of 30 gigawatts annual production capacity for most, if not all, and that's DOE's language, solar components by 2025 to 2026 and as much as 100 gigawatts by 2030. Today, the United States has approximately 30 gigawatts of polysilicon production capacity in line with the DOE's 2025 to 2026 target. But that number is well short of the 100 gigawatts by 2030 target. So, clearly, we need to start building new domestic polysilicon capacity right away. Investing in new capacity, however, carries prohibitively high risks, given China's massive global overcapacity.

Looking forward, the U.S. government must not repeat the mistakes of the past by focusing policy tools and resources principally on polysilicon's downstream products, such as semiconductors and solar cells and modules. We must also recognize that polysilicon itself is essential to America's supply chain resilience and long-term national security.

Thank you for your attention. I would be happy to answer any questions.

PANEL CHAIR MILLER: Thank you very much. Mr. Williams.

MR. WILLIAMS: Good morning. Thank you for the time, Mr. Chairman, panel members. Mr. Ban, thank you for allowing me the opportunity to testify today.

My name is Andrew Williams. I head up policy and market development for Canadian Solar. We're one of the only vertically-integrated solar component manufacturing and development companies, really globally but definitely with the footprint here in the U.S. I plan to focus my remarks in three areas today. One is on Canadian Solar's leadership here in the United States across the solar manufacturing sector, the critical needs to maintaining a long-term resilient domestic supply chain, and the practical trade policies necessary therefore.

But, first, for a bit of background on Canadian Solar, we were formed in 2001. We've been publicly traded on the NASDAQ since 2006, headquartered in Guelph, Ontario, which is right outside of Toronto. We've been active in the U.S. market for many years. In fact, in 2016, we invested into an organization called Recurrent Energy, which is one of the largest global solar project developers and storage developers, and their local office here is in Austin, Texas. Our headquarters is in Walnut Creek, California.

And as promised in several additional forums similar to this, Canadian Solar has started producing solar modules at our brand new 5-gigawatt facility located in Mesquite just outside of Dallas, Texas. That facility produces state-of-the-art TOPCon solar modules, and we're in the process of actively hiring 1500 workers to ramp up the facility. In fact, we've already hired over 800 American manufacturing employees at that site.

Overall investment in the Mesquite area is around $270 million, while at the same time we're actively working to invest about $840 million to manufacture solar cells outside of Jeffersonville, Indiana. Now, that solar cell facility, when it's up and running projected at the end of 2025, will supply the Texas module facility located in Mesquite, so an example of that vertical integration right here in the United States that I mentioned before.

Outside of the $840 million investment there, that facility in Jeffersonville, Indiana, which, if you're familiar with the area, is right over the river from Louisville, Kentucky, will employ, roughly, 1200 additional American manufacturing workers right there in Indiana from the surrounding areas.

But critical to maintaining a long-term resilient supply chain is regulatory certainty and clarity, as you've heard from several of the other panelists today. At Canadian Solar, we support all policies to promote solar manufacturing in the United States, including those passed in the Inflation Reduction Act, and we hope that, together with our investments, we will be able collectively to attract additional investments up and down the supply chain right there in the U.S.

But it's critical to get the regulations that implement the IRA right. For instance, the entire renewable energy sector, including U.S. solar manufacturers like Canadian Solar, are still waiting on final rules for the advanced manufacturing tax credit under Section 45X and the ten-percent domestic content boost to the investment tax credit. These details are critical and important. Manufacturers and customers are hesitant to make large investments and purchases without assurances that they'll be able to benefit from these tax credits and incentives. I urge the administration to move forward quickly to release final rules.

And, finally, the supply chain. To truly have a resilient supply chain depends on practical trade policies. I agree with my colleagues here on the panel that USTR staff are extremely competent leaders really within the industry, and the goal of creating a resilient supply chain in my mind really turns on the ability to work hand-in-hand with savvy trade policy that helps rather than hinders U.S. investment in solar manufacturing. And I believe there's room for improvement here.

For example, USTR Section 301 tariffs on critical inputs and machinery are harming current and prospective solar manufacturers. There's no choice really other than to import these items and equipment, which are simply not available currently here in the United States. And Canadian Solar alone has paid millions and millions of dollars of Section 301 tariffs that would have been much better used to reinvest in growing and building our U.S. manufacturing base.

Additionally, the restrictive quota on imported cells under the safeguard measure imposes a tariff on cell imports above 5 gigawatts. That's per year across the industry, and I just mentioned Canadian Solar alone, we're already ramping up our Mesquite facility. That's a 5-gigawatt solar module facility. The cells needed for that equal 5 gigawatts. That's in addition to the 20 gigawatts, total of 25-gigawatts projected cell capacity to come online over the next several years, so it's clear that not only us, while we are dependent at least for the term of the safeguard, which ends in February 2026, on our own imported cells that we're manufacturing in Thailand, the entire industry is dependent on imported cells. And, therefore, the safeguard tariff should be removed or, at the very least, increased.

So in closing, it's important that USTR take prompt action to give immediate tariff relief to U.S. solar manufacturing. There is simply no reason why we and the American consumer should be penalized for doing the right thing: producing and buying high-tech solar products here in the U.S.

Thank you. And I'm happy to answer any questions.

PANEL CHAIR MILLER: All right. Thank you, Mr. Williams, and thank you to all the other witnesses. Why don't we go ahead and jump into questions. Just a reminder, when responding, to leave time for others and also note that you all can follow up in post-hearing comments with additional information if needed.

I will go ahead and start with my first set of questions. My first question is for Mr. Williams. In Canadian Solar, in your testimony, you note that manufacturers and customers are hesitant to make large investment and purchases without assurance that they can take advantage of certain Inflation Reduction Act (IRA) tax credits. Can you expand on this, describe any uncertainties that you see from other suppliers that have resulted in lag in module manufacturing? And, finally, share your thoughts on how the administration can help relieve such uncertainties.

MR. WILLIAMS: Yes, absolutely. Fantastic question. Again, Andrew Williams from Canadian Solar.

Let me take the question in piecemeal, if I may. So number one, we're fully committed at Canadian Solar to, you know, in a vertical nature, grow our supply chain here domestically. You know, we started with mods. Mods are easier, faster to ramp up than cells. Cells are essentially a chemical process. It takes a little bit more planning and investment. I'm happy to get into that offline if you have some additional questions.

Specifically, though, regulatory certainty and really from a long-term planning perspective, when we're coming into the United States or really any area to make billion dollar investments that I just mentioned today, right, probably the biggest factor is how can we plan for regulatory certainty, what is the process that we know now that we'll have to go through over the next set of years. And it's okay if that changes, right, but it's not okay if that changes many times over a short period of time.

And so what we're looking for currently, number one, is certainty coming from the implementation of various provisions, whether they're guidance or final rules under the Advanced Manufacturing Tax Credit, specifically 45X, that's related to our business. But I think if I put my developer hat on and think about how I'm going to finance projects, you know, across the U.S., they're large and small, and I think about how the investment tax credit works specifically for domestic content, which we're yet to have final rules on, as well, it's hard to wrap your mind around the type of representations and indemnities that you're going to have to provide to financiers and, frankly, just the price that you're going to end up having to pay at the end of the day to develop a project without clear guidance. So that's step one, and step two is sort of a planned process for revision.

I'm not sure if that answered the first part of your question.

PANEL CHAIR MILLER: No, it did. Thank you.

MR. WILLIAMS: You know, I see also a tremendous opportunity. You know, we planned our investment. We looked at the U.S. for years and the IRA brought us to the U.S. in a large way. I think having a savvy, innovative, well-balanced trade policy that can augment, you know, incentives and other legislative action is also key, as you think about building out other, whether they're vertically-integrated companies like us or just investors in other areas of the manufacturing supply chain. That will be critical in working together with USTR, you know, but also with elected officials on those

policies, I think, will be key moving forward.
Did that answer the second part?

PANEL CHAIR MILLER: Yes. Thank you. And I have a follow up on that. In your testimony, you also mentioned that resilient supply chains that USTR hopes to achieve must work hand-in-hand with savvy trade policies that help rather than hinder U.S. manufacturing of solar products. Can you elaborate on which policies you believe are helping and which policies you believe are hindering manufacturing?

MR. WILLIAMS: Yes. So I think I mentioned two that I think are hindering, currently at least, our ability to grow our current operations. One is critical, the decision that I hope is near on Section 301; and then the safeguard provisions. I'm happy to go deeper into that offline if it's helpful.

But I get asked all the time, right, do you support tariffs. What other opportunities are out there to bring businesses to the U.S. to create a really secure not just energy future but manufacturing future for the United States. And I truly believe that that's a balance approach. You've heard a lot, I believe, from other panelists, which I'm sure have an opinion on this, as well, so I urge you to broaden the question to others. But as long as we can continue these types of dialogues, and tariffs alone are not the answer, and we're working on common sense balanced trade policy that both incentivizes, you know, businesses and, at the same time, you know, where necessary, takes action in other areas, that's sort of the breadth of how I think about the current political context around attracting additional businesses to the U.S.

Did that answer your question?

PANEL CHAIR MILLER: Yes. Thank you. And my last question for now is for the Polysilicon Coalition, Mr. Smirnow. In your testimony, you stated that the administration should recognize polysilicon as essential to America's supply chain resiliency and long-term national security and, as such, ensure that it receives the requisite policy support. Can you expand on what policy support the administration, you believe, should provide?

MR. SMIRNOW: Yes. John Smirnow, Polysilicon Coalition. So, today, the point that we want to make is that polysilicon needs to be recognized as essential to national security. That hasn't been done as directly as we believe it should, so that's kind of the threshold request today.

In our post-hearing submission, we'll be happy to follow up with some specific action items. And we would also look forward to engaging with the Office of the U.S. Trade Representative directly.

PANEL CHAIR MILLER: Thank you very much. Now I will turn it over to my colleague, Cora, for her set of questions.

MS. DICKSON: Thanks, Will. Okay. I'm just trying to choose which questions, so that, you know, we spread it out a little.

For NEMA, you mentioned that the imports -- I'm sorry. This is Cora Dickson, Department of Commerce. You mentioned that the imports of electrical goods are decreasing from China and increasing from Mexico. Is that because the production of those goods is increasing by Mexican companies, or are Chinese companies shifting their production to Mexico?

MR. FISCHER: Fred Fischer, NEMA. It's a very good question. I think it's a bit complicated. I mean, I think there are some Chinese companies, I think, that may be investing in Mexico, but I think, for the most part, there's been a shift from Mexico, from China to Mexico of a lot of electrical and electronic components on their own, and these are investments from European companies, from Mexican companies, frankly from U.S. companies, that are driving a lot of that, I would say, near-shoring to Mexico and away from China.

And I would say that the supply chains in China, when you import electrical goods or vehicles or complicated manufactured goods, it's really less than a five-percent chance that there's going to be U.S. content in those products. When they're shifted to Mexico, you know, there's a 15- to 20-percent chance that there will be U.S. content on there, so that alone is somewhat of a positive just on the face of the content and potential jobs and investment that are related to it.

So it is a bit complicated, but we have 37 members that manufacture in Mexico. Some of them are growing their manufacturing footprint. Frankly, we have companies that are Mexican companies where actually spinoff of GE that does transformers. They were purchased by a Mexican company. They do a lot of production there; but, frankly, they do a lot of production in the United States, as well.

So I think the intention and the realization is that Mexico is critically important in manufacturing to the United States and that continues to be so. And the fact that goods come from China, I think some of that is related to 301 policy, but I think also, prior to that and even through today, is the uncertainty and, as we talk about being more resilient and being faster to market and, you know, you're afraid of IP theft, and there are a whole host of reasons why you would like to look outside of China and reshore those or find alternative sources.

MS. DICKSON: Thank you. For American Clean Power, I have a couple of questions. One is whether you could further elaborate your view on the right balance between defensive trade measures and bilateral and multilateral trade cooperation on clean technology supply chains and whether this varies according to the input. And as a follow up, if you are able to indicate which partners and which inputs the sector-specific trade agreements that you mentioned would be most effective for securing the advanced battery supply chain.

MS. SCIARRA: Thanks for the question,

Cora. Vanessa Sciarra, American Clean Power. So you asked the million dollar question, right: what is the right balance between defensive and sort of defending, if you will, American manufacturing interests and creating some sort of protection for those interests while also ensuring that you have adequate supply to meet deployment needs. And for us, we're always looking at that gap between domestic production and deployment requirements because we represent both manufacturers and companies that are highly involved in the deployment and the construction of these large projects.

The answer is, in an ideal world, we would manufacture everything tomorrow and we wouldn't be worrying so much about the import dependence, certainly on finished products, solar panels, batteries. Let's start with that as a starting point. That is just not realistic. We all know how long it takes to, Mr. Smirnow mentioned how long it takes to get these things online. Mr. Williams, as well. These are complicated projects, big cap-ex, hard to get investors interested if they don't feel that they have off take or they have purchasers who will be able to buy at the price they're going to produce a product. So that sort of calibration is very complicated. No one said this was going to be busy.

But I think it's important to make space for imports. We've had a lot of conversations with many of the agencies, including yours, about how these two sort of demand curves have to intersect, and they're not going to intersect tomorrow. And the real work that needs to be done here, I think, by all of the agencies is thinking about where, realistically, we see domestic production of solar panels and cells and batteries, energy storage batteries in my case, and the deployment needs that are on a faster trajectory, frankly. And that is why, I'll be honest with you, our solar and energy storage developers are very import dependent right now, as you know. This is creating lots of trade friction. Most recently, in a case that was a filed at the Commerce Department with the AD/CVD laws, but it's also, as commented earlier, it's also being reflected in the discussions about 201 and 301.

I'm happy to provide some specific examples in my post-hearing brief. I'll just say this: I think tariff policy is a very complicated area. I'm just going to use my favorite phrase from my kids: with great power comes great responsibility. If you're going to implement tariffs that affect American industry, both the producers and the people who are importing products, you really need to think about how those effects are going to be felt. And I think a key element of that is data analysis, really good data analysis, so that you really are looking at real numbers and not just people's advocacy positions, which are not always, between us supported by the most robust production of data. And we work very hard at ACP to do that, but, as I said, I can provide some more follow-up comments.

I think on the issue of which countries, I'm going to take a little bit of issue with Veronika's statements that, you know, out outliers aren't always necessarily responsible. I take your point, and I understand that, in times of crisis, as we saw in COVID, people were retrench. We saw that with governments implementing export bans, no one is going to take my medical supplies because I need to service my own population. I understand that. I still think there's a role for trade negotiations, though. I do think there are mechanisms you can build into a trade agreement, and I'm happy to supply some further sort of specifics in my comments post-hearing. But I do think there are ways you can negotiate and discuss these items in a way that allows you to use your trade partners as a trusted ally. I mean, realistically, I think we're just not going to be able to produce everything. Certainly, we're not going to extract and process every mineral that we may need, and that's just not today's minerals, that's minerals for technologies that are coming onboard now that are new battery technologies that aren't even commercially viable yet but that will likely be commercially viable in five to ten years.

So we have to think not just for today, and I'm the first to say I don't think lithium-ion batteries will be the only source of energy storage, but about things that we'll need in the future. And we have to think about that very strategically. It's super complicated, but I will be happy to provide further specifics in my comments when I file. Thanks.

MS. DICKSON: Thank you. Actually that might segue into the next question for National Mining Association because I was interested in learning further about your concerns on trade partners, especially ones with whom we have existing agreements. If you could perhaps go into more detail on those concerns and why the agreements don't sufficiently address those concerns. Thank you.

MS. SHIME: Thank you for the question. I realize I was remiss in the requirement to state my name originally. Veronika Shime, and I'm Senior Advisor and Vice President of International Policy and Sustainability at the U.S. National Mining Association.

Well, we have lots of examples currently with Mexico, which I mentioned in our comments. It's an official ally, and you would think that would be a less riskier country, but we have several examples where companies are facing direct expropriation and/or I actually have a list of grievances because we're developing this list to share that because these are real concerns. Some of them are abuses of the law, erosion of the law, that the current president doesn't want to process any additional mining permits, or that there's tax harassment and punitive positions using tax. The government has seized the mining fund that's supposed to be distributed to the communities. They tried to reform their mining law of last year and that would not allow any greenfield opportunities to go to the private sector but was retained to government only. So you can see the push to nationalize commodities, which they have done. They even took over the site of a construction materials U.S. company. So if construction materials are being expropriated, then critical minerals should, obviously, be not far down the track.

So the concern here is that foreign direct investment is not protected in Mexico, which is why we highlight the need for safeguards and protections and we highlight what some of them are in our comments. But we're open to the discussion on that because it's really about protecting foreign direct investment and having national treatment what foreign companies get just by operating in the United States under our constitutional law.

We see interesting countries, like

even Sweden, nationalizing commodities. So European countries are nationalizing commodities. Everyone is thinking about it, everyone is doing it. Obviously, China has already done it, and we know all about that story. But that's why we think domestic production should probably be the first priority where and when possible, given that we have resources here.

And if we do care about the extraction, you know, the implications of this very challenging sector and to mitigate environmental, social and governance, why not do it under some of the most robust legal and regulatory frameworks globally. I mean, we should choose the United States' production over DRC or countries that have less of a legal framework or less capacity to monitor the operations, and then we have control over the entire supply chain. So it seems like a win/win situation. Thank you.

If possible, if we have time, I'd love to take a bite at the apple about the standards conversation the previous panel had. It was really interesting, and we definitely utilize a lot of voluntary standards. So I'm happy to elaborate on that, as well, if you'd like.

PANEL CHAIR MILLER: If we have time, we can elaborate on that. But right now, Cora, if you don't mind, I'm going to pass it over to our colleague, Leo, with the Department of Labor.

MR. BAUNACH: Good morning, and thank you all for being here. Leo Baunach from Bureau of International Labor Affairs at the U.S. Department of Labor. I'd like to open, I think, my initial set of questions to all of the panelists, the first question being to what extent would expanded use and recognition of industry-led traceability protocols strengthen the competitiveness of clean energy supply chains that maintain high labor and environmental standards? Thank you.

MR. SMIRNOW: Yes. I'd be happy to talk about that. John Smirnow, Polysilicon Coalition. Traceability is something that I've focused on quite deeply over the last couple of years. I oversaw the development of SEIA, the Solar Energy Industry Association's traceability protocol, as well as the solar industry's public request to move, relocate the solar supply chain out of the Xinjiang region. In my new capacity representing the Polysilicon Coalition, traceability is also something that we're very focused on and in the context of enforcement of the Uyghur Forced Labor Prevention Act.

What we've seen in the industry is UFLPA went into place, and the U.S. government targeted a handful of companies that were identified in public reports. Most of those companies have been subject to some level of detention. Those companies, many of them quickly turned to more trustworthy supply chains, entered into supply agreements with U.S. polysilicon, German, Malaysian manufacturers. They saw those as more credible supply chains.

In that environment, because those were the only companies that had been named publicly as being connected to Xinjiang, the U.S. government continued to focus on those companies for enforcement even as they started, those companies started to purchase cleaner, develop cleaner supply chains.

In contrast, you had Tier 2, even some Tier 1, Tier 2 suppliers that hadn't been named in those reports really start to increase their imports into the U.S. with presumably Chinese polysilicon that really wasn't being tracked. Some of those countries probably could have traced, but the Uyghur Forced Labor Prevention Act doesn't mandate that you trace. Only if you're detained, then you have to be able to show that you can trace. And in the solar industry, tracing means from quartzite, you're detained, it means from quartzite all the way to the imported module.

We think that there really needs to be more of a focus on traceability, that Customs should really probe the broader supply chain to see who is exercising due diligence. As the

Forced Labor Enforcement Task Force has recognized, tracing is a basic requirement of due diligence. We think more work is needed there. We've had good, positive conversations with U.S. Customs and Border Protection. You know, they have a hard task. They've done a good job. They're getting stronger on enforcement.

But, you know, eventually, traceability should be a minimum cost of doing business in the United States. If you're going to sell solar panels into the United States, a minimum requirement, you should be able to trace.

MR. WILLIAMS: If I may add a couple of comments. Andrew Williams again from Canadian Solar. I think traceability, and I'll get to that here in a second, is absolutely paramount in many areas, but I also think it comes down to corporate culture. If you're talking about industry-led initiatives based on traceability, I think that you can naturally expand that into what the corporate policies are, what the mandates are coming from the highest levels of the organization down to the lowest levels of the organization, and how those are implemented.

At Canadian Solar, we have a whole slew of forced labor prevention policies in place, not just supply chain traceability, as Mr. Smirnow just mentioned, which, by the way, we do have -- we're a little different, as I mentioned before, a vertically-integrated company, so we have visibility for sure from the ingot stage down, which we control most of the part through our manufacturing practices but all the way up to the mining facilities, and we're in full compliance with the laws here in the United States and globally.

But if you're looking at how do you really shift the balance from a labor perspective, I really think it comes down to the corporate practices. So we not only maintain strict ESG procedures that mandate, we do interviews and survey our suppliers up and down our supply chain. But we also maintain interaction, you know, in a global context with organizations like the Solar Stewardship Initiative across Europe and in the UK, which obviously do not have a UFLPA-like regulatory framework in place now, but I think the U.S. has a role to play there.

So I will leave you with that, and I'm happy to provide some comments in my follow-up brief. But don't forget that it's not all about traceability.

MR. FISCHER: Fred Fischer, NEMA. You know, this is a real challenge for industry. For large companies, multinational companies that have the resources to hire consultants and to put in place processes, it's still a challenge, but it's a little bit easier. But when you get to smaller, mid-sized, and smaller manufacturers that don't have those resources, they really need to look for outside help, and we would highly support U.S. government efforts, Department of Commerce and elsewhere, to assist companies in trying to navigate and build out transparency and to better understand supply chains. And UFLPA is active now, so companies have to do their best to comply with those requirements, but we certainly would encourage any U.S. government efforts to work with businesses, particularly small and medium-sized businesses, to understand their challenges and to meet these common goals that you're trying to reach in trade policy and other policy.

MS. SCIARRA: Could I just add one quick comment on this? I think it's really important, first of all, ACP completely behind no forced labor in supply chains. Our company is staunchly behind that, and I agree with Mr. Williams' comments that the companies are trying to work -- you know, this is a corporate culture issue. It goes all the way down. It's really important to have robust results.

But I do think it's important to have conversations with allies about how other countries are not stepping up. It's really clear to me, having been working on this for three years, that some of our best allies have just not done a very good job at addressing this. There's a lot of conversation about it at the G7 and G20, but there needs to be more bilateral consultation about this. I know this is on all of your radar screens. I know you all work on this. Just a sort of a push for the fact that that would be helpful.

The practical reality is that nothing changes if only one country tells the other country you can't do this. There has to be some sort of more global sort of pressure on the marketplace, and I think that's something that really needs to be at sort of that highest level as you approach this issue globally.

MS. SHIME: Thank you. The mining sector definitely supports the need for more traceability, especially within our products. That's something that we're actively looking to do. There's a long history, you know, starting with the Kimberley Process several decades ago with diamonds and then Dodd-Frank 1502 with conflict minerals to reduce human rights violations and armed conflict along the supply chain, and now we've evolved into the entire supply chain of critical minerals but not just to reduce armed conflict and human rights violations but to make sure that these are responsibly-mined products. And so our members definitely support the idea of finding a solution for traceability because they want to show their customers it's their products because they are mining their products responsibly both in the United States and abroad.

So there currently are a couple of traceability standards that are out there. Copper Mark has a traceability standard, and they are actually consolidating their major standard and traceability standard with four other major sustainability standards. Globally, the ICMM, International Council of Mining and Metals, the World Gold Council, and, towards sustainable mining, the Mining Association of Canada's towards sustainable mining. So those four initiatives are consolidating their standard, and that will have an extraction standard but also a supply chain traceability standard.

And we're pretty excited about the potential for that standard to actually represent a secure supply chain because that's the problem. If it were public right now and developed, because it obviously takes a bit to develop, they would already represent 700 mines globally. So if we're thinking about secure supply chains, the more that participate in these standards, the more we can trust them and they're harmonized across the board. Right now, the Copper Mark, for example, represents 30 percent of copper that's globally out there.

We have this conversation with OEMs and our customers, you know, the customers because we're the beginning of the supply chain, and they have targeted one or two standards. And our conversation with them, because they're backing off now on just utilizing one or two standards, is that it doesn't create the reliable supply chain. If they mandate one, they won't have a commodity to be at the beginning of the supply chain.

So we need to let industry, we need to highlight which ones are equally robust and have multi-stakeholder boards and third-party assurance and the critical criteria that everyone agrees are necessary for them but then allow companies to retain the business decision to choose which one mitigates their risk because that's what all this was supposed to be doing is actually mitigating risk, improving things, because we're always looking to improve, but also meets their key stakeholders' needs, not telling their key stakeholders what their needs should be. And that, we think, will create a secure supply chain that is traceable.

The traceability of it is going to be challenging just because diamonds, we didn't think it was easy back then with the Kimberley Process, but it seems pretty easy now when you think about critical minerals and processing and how these come together and refining. So we're definitely supportive, and we'd be happy to continue that conversation.

PANEL CHAIR MILLER: Thank you, Ms. Shime. Just ten minutes, we have ten minutes left. Maybe just one answer per question. And if we have time at the end, I think we have additional questions. But thank you.

MR. BAUNACH: Great. Thank you very much for all of the responses to that. I wanted to ask the Polysilicon Coalition how would addressing overcapacity in polysilicon be paired with holistic efforts to strengthen all layers of solar photovoltaic, battery and semiconductor supply chains and how have your members responded to a increased demand for due diligence, as well as some of the needs that you brought up in your statement. Thanks.

MR. SMIRNOW: So how are we responding to demand, I got that part of it. Could you repeat the first part of your question? I didn't hear that.

MR. BAUNACH: Noting your comments

were more focused directly on polysilicon, how could that be paired with holistic efforts throughout all of the destination supply chains, including solar, batteries, and semiconductors.

MR. SMIRNOW: Yes. So I think, in some ways, solar is creating the standard for traceability because it's one of the high-risk products, I guess, cotton, tomato, polysilicon. It's been subject to the most scrutiny, as well, so I think a lot of the lessons learned that Customs is learning in enforcing the Uyghur Forced Labor Prevention Act, how it's developing tracing requirements, what it's expecting from people, I think all of those lessons can be applied uniformly to these other industries, so that would be my first response.

And I think tracing is, it's harder in some industries than others certainly. You know, in the solar industry, there aren't a 100 polysilicon manufacturers. You know, there's much smaller numbers, so tracing, admittedly, is easier in our industry. It's not easy, but companies clearly can trace from quartzite all the way through to the imported product.

How the industry has responded is to put very granular tracing policies and procedures in place and then working closely with the U.S. government to satisfy that products that are coming into the U.S. with U.S., German, Malaysian polysilicon is free of any forced labor, and they've been successful in doing that because, as I said during my testimony earlier, in the solar industry, most of the focus on detention, on requirements for tracing, have involved imports with non-China polysilicon, whether it's U.S., German, or Malaysia. And so we've responded by helping the government develop what is effectively the standard and putting all the policies and procedures in place. So now, when someone gets detained with U.S. polysilicon, we can respond very quickly and the U.S. government increasingly has comfort with the information we're providing.

MR. WILLIAMS: If I may add just one

comment, I know -- if that's okay. Andrew Williams with Canadian Solar. I would be remiss if I didn't mention it's not ring circle to non-China polysilicon. A lot of us do blend our materials with a certain amount of non-Chinese polysilicon and also do use China polysilicon and are still able to trace our supply chains all the way back to the mines to the U.S. port of entries and have been able to demonstrate that they are free from forced labor and in full compliance with the U.S. laws.

And I'm happy to follow up in my reply brief with additional information there, but I just did not want to leave this conversation without saying that we're not squarely focused on non-China policy only.

MR. BAUNACH: Thanks very much, and I hope the record will reflect your comments with the background noise. I'd like to end with ACP. If you could comment on overcapacity in clean energy technology supply chains, including how worsening of overcapacity in key clean energy technologies and inputs could affect labor conditions and the goal of a race to the top through aligned labor and environmental standards. Thank you.

MS. SCIARRA: So I think we're all aware that Secretary Yellen and Secretary Blinken have been in China recently, and this has been one of their key concerns in their discussions with the Chinese government. So we all understand it's a top priority for the U.S. to figure out how to try to convince the Chinese to stop flooding the market with their products that are clearly being dumped in the market because their internal domestic economy can't absorb them and also warning the Chinese, I think, that we will be taking some defensive measures, to Cora's point, if we have to. There's this calibration that I talked about between when you decide there are too many imports coming in at low prices and you have to support U.S. industry and when you decide that too much support to the industry is destructive to some of the domestic drivers that we want to help produce domestic manufacturing.

So I think it's a huge macroeconomic question. We are the center of it, obviously, because our industry imports, at the moment, a lot of modules and solar cells, as well as batteries. It really goes back to my points I made earlier about being able to sort or calibrate that response. I will say that I think the jobs that our industry provides for U.S. workers are excellent jobs both at the manufacturing level and also, obviously, a lot of construction jobs and maintenance jobs because, once the solar and wind facilities are developed, there's work to be done with constructing them and then maintaining them. We feel very proud of our workforce. We're building out increasing workforce programs to train people to the jobs of the future, such as wind technicians and, working in the offshore capacity, mariners will be needed to service wind turbines.

So all those jobs that we're trying to create to sort of build for that economy, we're very aware of that. We have a whole workforce initiative that I can develop in my comments about how we're doing this.

But I think the overcapacity issue is something that the U.S. government is obviously focusing at a very high level based on those trips to China, and I think the key U.S. piece of it that I'm sort of raising with you guys is we need to just be mindful. I'm not saying don't ever take defensive measures. I realize that we're subject to a whole series of them right now, but I think there needs to be this calibration, to Mr. Williams' point, about 201 and 301. There has to be some sort of balancing of interests here. If we just go completely defensive and put up tariffs on everything, we're going to have some sort of negative knock-on effects from that, and the key knock-on effect in my industry would be we will not deploy as much clean energy power. We just won't do it, and we'll have to be relying on other sources of energy, and some of those are not very clean.

PANEL CHAIR MILLER: Thank you for that answer. I believe we have time for one more question. Cora.

MS. DICKSON: Cora Dickson, Department of Commerce. A quick question for the Polysilicon Coalition, Mr. Smirnow. You briefly mentioned the interdependence between semiconductor-grade polysilicon and solar-grade polysilicon with regards to economies of scale and how, even though they are obviously different sectors and different types of polysilicon, they are interdependent, at least in the United States, recognizing that actually U.S. semiconductor-grade polysilicon producers had the strongest market share.

So can you elaborate how China's dominance in solar-grade polysilicon is a threat to U.S. competitiveness in semiconductors?

MR. SMIRNOW: Yes. So operating a polysilicon plant, you really need to be operating at a high capacity level. I don't know what the number is, but let's just say 80 percent or more. It's one of the reasons why we're seeing so much polysilicon be produced in China. They built all these factories, and they need to run those plants. These are very sophisticated facilities. They need to run those at very high-capacity utilization numbers. So that overcapacity flooding the market has to do with the need to run a polysilicon plant at high capacity.

In the relationship between solar grade and semi grade, solar grade is, by far, the overwhelming driver of polysilicon production, you know, on the scale of, like, 95 percent solar grade, 5 percent semi grade. Semi grade, the U.S. are leaders in semi grade. Overall, if polysilicon is essential to national security, semi grade is, like, ten times important to national security. So to be able to produce semi grade cost effectively where you're not losing money, you need to have your entire integrated facility, so these facilities are producing both semi grade, as well as solar grade. And so you have to look at each facility holistically. You're not just looking at the semi-grade furnaces. The whole plant operates as one unit, and, for that overall plant to be competitive, the entire plant needs to be operating at high-capacity utilization levels. And if polysilicon is 95 percent of that 100-percent plant production, you see the connection there.

PANEL CHAIR MILLER: All right. Thank you, everyone. Sorry, Ms. Shime, we couldn't elaborate on that standards question, but again, please note that we can follow up in post-hearing comments with additional information.

I want to thank all the witnesses and thank you to the panelists. That concludes Panel 8. Thank you for coming.

And now I believe we have a break.

(Whereupon, the above-entitled matter went off the record at 12:07 p.m. and resumed at 1:02 p.m.)

PANEL CHAIR BOVEJA: Good afternoon, everybody. We're going to get started with our hearings now. My name is Namrata Boveja. I'm the Director of Industrial Trade Policy with USTR. I'll be chairing our next panel, which is Panel Number 9.

We're looking forward to hearing from all the stakeholders about the aerospace, automotive, and the chemical sectors. As a reminder, each witness should introduce themselves before they begin. And my interagency colleagues are going to be introducing themselves when they ask their very first question. Let's get started.

Mr. Carney?

MR. CARNEY: Good afternoon. My name is Christopher Carney. I'm General Counsel for FDP Virginia. We're a small to mid-size U.S. automotive manufacturer with manufacturing located in the United States and other areas of the world, including China and India.

The first question asked in this investigation is how can U.S. trade policy better support growth and investment in domestic manufacturing? Obviously, the federal government's primary tools for doing so is the U.S. tariff policy. Historically, the three primary goals of U.S. tariff policy have been stated as, one, to generate revenue for the federal government; two, to protect domestic industries; and three, to remedy trade distortions, the punitive function.

Unfortunately, there are several major inconsistencies between those goals and the current implementation of U.S. tariff policy. At present, U.S. manufacturing is disadvantaged at every level of U.S. tariff administration. U.S. manufacturers are disadvantaged under column 2 of the HTS schedule, the statutory or punitive tariffs, because under the current country-of-origin rules, foreign competitors in every country outside the United States can lawfully manufacture their way out of 301 and 232 duties, with only U.S. manufacturers alone unable to do so.

U.S. manufacturers are also

disadvantaged under column 1 of the HTS schedule because outside manufacturers can locate production in countries with U.S. free trade agreements and sell into the U.S. market duty-free, giving them a tariff advantage over onshore manufacturing.

Additionally, U.S. manufacturers are disadvantaged regarding components, including items for retail sale that do not impart the essential character of the good. Foreign competitors can include these components without tariff penalty, while U.S. manufacturers alone cannot.

Allow me to explain this from an industry perspective. We have a competitor, a direct competitor in India, who owns a Chinese factory. When the 301 tariffs went into place, they began moving raw materials from China to India and lawfully manufacturing their way out of the 301. They sell into the U.S. market at the general duty rate of two and a half percent. Yet a U.S. manufacturer doing this exact same process with the exact same raw materials cannot do so and cannot compete.

We have a direct competitor in Mexico who is 100 percent owned by a Chinese company who also sends their raw materials from China to Mexico. Not only do they avoid the 301 and 232, but because these products qualify for USMCA on a tariff shift basis, also lawfully avoid the general duties. They include components, Chinese components, in the box and use the Mexican programs such as IMAX to pay no tariffs whatsoever to either the U.S. or Mexican government.

I recently returned from Colombia, where I met with an industrial park in a free trade zone in Cartagena. They boasted about the international companies that were already there, about their labor rates and low overhead costs, rapid setup, and also about their free trade agreement with the United States providing the opportunity to sell into the U.S. market tariff-free.

In effect, by moving our manufacturing to Colombia or Mexico, we would avoid paying tariffs altogether and in the meantime have to compete with the companies that are already there doing so.

The second question in this investigation asks, what existing or new tools could help ensure that growth in domestic manufacturing does not undergo the offshoring we've experienced over the past decades?

We propose that the U.S. Foreign Trade Zone Program be used to allow U.S. manufacturers to compete with their foreign competitors on an equal tariff basis. It is the nature of why the program exists. It is a change that could be made relatively easily and would provide U.S. manufacturers with at least one option for relief.

If manufacturers outside the U.S. can manufacture their way out of 301s and qualify for U.S. free trade agreements and include components without penalty, then U.S. manufacturers and US

FTZs should be able to do the same. In fact, by simply applying the same country of origin rules currently applied outside the United States to U.S. manufacturers and FTZs, products could be made here in the United States and be deemed country of origin United States and moved into the U.S. market duty-free, just as they could in Mexico, Canada, Colombia, or anywhere else.

Thank you. I look forward to your questions.

PANEL CHAIR BOVEJA: Thank you, Mr. Carney.

Ms. Daniels?

MS. DANIELS: Hi. My name is Kim Daniels, and I am the owner of Mercantile Logistics and International Trade Incorporated, a customs brokerage that focuses on the needs of small and micro businesses. We are grateful for the chance to share expertise on supply chain resilience and contribute to the development of this U.S. economic strategy.

U.S. Government has created

regulations and interpretations of those regulations that have caused an unfriendly business environment for small and micro businesses when it comes to international trade activities specifically providing services in growing exports.

How can we better support growth and investment in domestic manufacturing and services? You asked for blue sky thinking. So what if we want to domesticate manufacturing even partially? We must expand the workforce, as we do not have enough workers for the jobs that already need to be filled.

In 2023, we averaged 225,000 additional jobs per month. But despite the 6.4 million employable people looking for jobs, there are currently 8.8 million job vacancies that remain unfilled according to the Bureau of Labor Statistics. To address this gap of 2.4 million workers, we propose USTR to work with the Department of Labor and the Bureau of International Affairs for the improvement of the immigration process into the United States.

We suggest establishing a workforce initiative that provides an easier pathway to legal immigration. Amend the 1986 Immigration Reform and Control Act to allow for working immigrants to provide support to our future domestic manufacturing sector. And consider the need of personnel as much as the need for industrial supply chain resilience.

By implementing an initiative directly at the border, we can simultaneously train new immigrants for legally obtainable jobs at fair wages, filling the current surplus of job vacancies. This strategy will also support any potential growth in the manufacturing sector without undermining current and future American workers.

If we want to compete with the China manufacturing sector as well as others that we are more friendly with, we must have a much larger and stronger workforce. Vacating the GSP Program, increasing Section 301 duties, and a movement away from free trade agreements is only going to exacerbate our current issues, especially for small and micro businesses.

To address the surge of imported goods and stabilize domestic manufacturing while preventing offshoring, we need a well-planned strategy. Considering that more workers equate to more resources, it's clear we need to expand our workforce. Currently, we lack sufficient personnel to fill existing job vacancies, which raises a question: how can we staff additional manufacturing roles?

The answer lies in reconsidering our approach to immigration, education, and job training. We are missing out on valuable potential workers by turning them away at our borders. Additionally, we propose that the 37 percent of high school graduates who opt to not seek higher education be provided with free vocational training during or shortly after high school. College can be a choice but should not be the only choice for young people.

The vocational development of these adults will allow the U.S. to harness stronger capabilities to bolster our domestic workforce. We will never achieve a strong domestic manufacturing sector if we do not focus on increasing and strengthening that workforce.

Trade investment policy tools to enhance supply chain resilience -- other regulations we are trying to contend with regard the various new international trade regulations and their interpretations by Customs and Border Protection.

For example, UFLPA, while an important regulation for combating forced labor in other countries, has a guilty-until-proven-innocent stipulation, and a micro business does not have the resources to figure out the web of supply chain possibilities. More importantly, by the time the goods arrive in the U.S. and are suspected of a UFLPA violation, the importing company has already paid for those products and the freight costs, and that money is already in the offensive country and there is no recourse.

To mitigate this problem, we recommend that the government invest in developing freely accessible, user-friendly, and secure tools that can verify compliance within any sector supply chain before shipments leave their country of origin.

Technical standards and regulations supporting supply chain resilience -- while technical standards are necessary for new technologies, the regulation in the international trade industry needs to be reconsidered. This sector already faces numerous regulatory challenges, forcing micro businesses to either invest more money than they can afford to remain compliant or cease operations entirely.

Recent interpretation of Part 111 of the 19 CFR says that customs business cannot be conducted outside of U.S. customs territory. Customs business is not just filing entries. It is also consulting, answering emails, making phone calls to the border for a client when you happen to be on vacation or you're on a trade mission.

Therefore, exporting consulting services to factories overseas is very complicated because you have to do your notes there and then come back to the United States in order to email them to your potential client.

We recommend a review of the law and the way it is interpreted with particular focus on what that interpretation means for all the businesses in the trade. Type 86 de minimis is another thing that needs to be reinterpreted. They have now come and said that customs brokers are required to be the importer of record and all the liability that that entails for Type 86 entries. That is not fair. Every customs broker cannot take on that kind of liability, especially if they're micro businesses.

Mercantile Logistics commends USTR's efforts to promote supply chain resilience, and we appreciate the inclusion of our testimony on this very important subject. Thank you.

PANEL CHAIR BOVEJA: Thank you, Ms. Daniels.

Ms. Winter?

MS. WINTER: Hi. My name is Whitney Winter, and I'm the President of Meco Corporation in Greeneville, Tennessee. I appreciate the opportunity to speak on supply chain resiliency as it relates to the importance of domestic manufacturing and 301 tariffs.

The economic impact of jobs directly created by domestic manufacturing supports economic growth, community investment, skill development, innovation and technology, and national security. If adequate trade policies are not in place to protect small to medium-sized manufacturers such as Meco, that economic impact will be profoundly felt by working families in small town USA.

We believe that domestic manufacturing helps to strengthen domestic supply change, reducing reliance on foreign sources for critical components and inputs. It is crucial to reduce dependency on other countries as a world leader promoting freedom, democracy, and human rights.

Meco serves as an example for the many small to medium-sized American manufacturers that are under considerable pressure by the PRC. Meco, a family-owned domestic producer of barbecue grills, has been fabricating steel products since 1959. Our manufacturing facility is in an at-risk community in rural Appalachia.

Before the PRC engaged in an intellectual property theft and unfair trade practices such as cost and currency manipulation, we employed 900 people in our Greeneville, Tennessee, facility. We currently operate at less than 25 percent capacity with 170 employees due to the loss of our steel folding furniture category.

Focusing our efforts on grills, we now believe Meco to be one of the last vertically integrated manufacturers of charcoal grills in the U.S. today. Many U.S. manufacturers have been severely harmed by Chinese manufacturers that steal designs, use American marketing materials, and display American products in their Chinese showrooms.

These unfair practices save them significant development costs and create product confusion. And it allows the PRC to sell into the U.S. market at prices below U.S. material cost and slowly erodes our customer base and business.

A tariff on Chinese products made with subsidized materials, such as steel, like charcoal grills, will be the only way to level the playing field for domestic manufacturers to compete and preserve U.S. manufacturing capabilities. Maintaining and creating jobs and creating opportunity to grow our local communities, not only in the Southeast but across the country, must be a priority to survive and thrive as a nation.

Without additional tariffs, our company may not survive, and many others are at risk. Unfortunately, the tariff actions today have impeded manufacturers like Meco to compete, and they have tipped the scales to further benefit that of the PRC. For instance, the 232 tariffs implemented on steel in March of 2018 and the 301 tariffs from September of 2018 imposed on the few grill components that we import, as well as on steel, raised our cost of production.

At the same time, no duty was imposed on the competitive Chinese finished products being imported into the U.S., although they were imposed on gas and electric grills.

During the COVID pandemic, Meco never shut down, and we were deemed an essential business providing American consumers a method of cooking when restaurants were closed. When the Chinese supply chain failed, Meco continued to supply retailers.

After the COVID pandemic, our labor, materials, and overhead costs increased significantly, thus forever changing the landscape of opening price point in the grill market for domestically manufactured grill.

The PRC is currently quoting products at a price that is jeopardizing the sustainability of our business and others. The continued lack of duty on the competitive Chinese finished product will only serve to make it more difficult for Meco to compete.

Without help from the USTR to protect domestically produced consumer goods like charcoal grills from foreign competition that utilizes subsidized materials and labor, 170 jobs are at risk in an at-risk community. Like many small manufacturers, Meco not only supports jobs in our local community in Greeneville, Tennessee, but we support jobs across America. Manufacturing over 800,000 grills a year supports the domestic production of steel, powder paint, pallets, packaging, as well as American truckers, local schools, public institutions, and families.

I would be remiss if I didn't address the most recent efforts of the Biden administration to seek increased tariff on steel, which would triple the current 301 tariff rate.

While we applaud the recognition of the Chinese threat to U.S. jobs, this proposal has the potential to further impair Meco and other American manufacturers.

Ultimately, any tariff on components or raw materials without corresponding tariffs on finished goods only serves to enable the PRC. This enhances the national security threat of a diminished low-tech-based manufacturing capability in the U.S., without which the U.S. Government will have no resources should they find themselves in need of basic manufactured goods.

In the original 301 tariff list, gas grills and electric grills were included to receive a tariff. However, charcoal grills were not included despite support from the Department of Commerce and our attempts during our testimony in front of the USTR in 2018.

Meco humbly asks that the USTR review the HTS list to include finished products made of steel and to specifically add charcoal grills to the list of products on which 301 tariffs are imposed before another American manufacturer closes its doors. This will allow us to not only continue as a viable grill manufacturer, but it will allow us to grow and provide more jobs in rural Appalachia.

It's simply incomprehensible that the USTR would impose a tariff on steel, on our grill components, on gas and electric grills, but not charcoal grills.

Thank you for the opportunity to speak before the Commission today and for your service to our nation. We'd like to invite the Committee to witness domestic manufacturing at its finest in Greeneville, Tennessee.

PANEL CHAIR BOVEJA: Thank you, Ms. Winter.

Dr. Kohl?

DR. KOHL: Good afternoon. My name is Dr. Florin Kohl, and I'm the President of the Epoxy Division at Olin Corporation. My job involves all aspects of general management of

Olin's Epoxy Division.

Prior to joining Olin, I've worked for various companies in the chemical industry for 24 years in global P&L, procurements, supply chain, marketing, and sales roles in the United States, China, Japan, and Europe.

I thank you for the administration's interest in strengthening the domestic supply chains for critical industries and for providing me with an opportunity to testify today. I will spend my time providing some background on the chemical sector, the effects of unfairly traded imports of chemical products on domestic producers, including for essential products like epoxy resins, and the need to take a whole of government approach to secure the broader upstream and downstream domestic chemical manufacturing supply chain.

First a little background. Olin was founded in 1892 and is a leading vertically integrated global manufacturer and distributor of chemical products and a leading U.S. manufacturer of ammunition. Our chemical products include chlorine and caustic soda, vinyls, epoxies, chlorinated organics, bleach, and hydrochloric acid.

Our Winchester subsidiary produces military, law enforcement, and civilian ammunition, components, and industrial cartridges. Our business units employ 7,400 workers across 14 states and in more than 20 countries to serve our customers in 100 countries.

While my testimony today is relevant to the chemical sector as a whole, my comments will largely focus on the significant harm being caused by unfairly traded imports and on the continuing need for strong enforcement of U.S. trade remedy laws as a critical tool to maintain the resiliency of U.S. supply chains.

Olin is a vertically integrated epoxy resin producer that serves a diverse array of critical industries and applications, including wind energy, electronics, semiconductors, transportation, aerospace, defense, consumer goods, civil engineering, and infrastructure.

Epoxy resins and composites are used in liquid and powder industrial coatings, civil engineering materials used in the construction of infrastructure like roads, bridges, ports, factories, airports, substitutes for wood, metal, and cement, and automotive, aerospace, defense building and construction and marine applications, and the fabrication of turbine blades for wind energy generation.

The chemical sector was not mentioned in USTR's March 6th Federal Register notice announcing this hearing but is absolutely critical to America's economy, renewable energy, and national security. Indeed, the Cybersecurity and Infrastructure Agency, CSIA, has identified 16 critical infrastructure sectors whose assets, systems, and networks, whether physical or virtual, are considered so vital to the United States that their incapacitation or destruction would have a debilitating effect on security:

national economic security, national public health or safety, or any combination thereof.

One of those 16 sectors is the chemical sector. As recognized by CSIA, the U.S. chemical sector converts raw materials into more than 70,000 diverse products essential to modern life. U.S. chemical facilities use, manufacture, store, transport, or deliver chemicals along complex global supply chains.

CSIA therefore has determined that the uninterrupted production and transportation of chemicals is essential for national and economic security. The chemical sector, therefore, requires a dedicated trade and investment policy approach to combat threats to domestic supply chains.

U.S. trade and investment policy, including the effective enforcement of U.S. trade remedy laws, is critical to supply chain resilience. In the chemical sector, like many other industries, Chinese and other Northeast and Southeast Asian companies have built up massive excess capacity, largely due to significant government intervention, which is being used to attack the U.S. market, capture market share from domestic producer, and undermine the resiliency of domestic supply chains.

United States and European Union each produce between 30 and 50 million tons of chemical products per month, but while U.S. and EU production of chemical products have remained constant or decreased over the last 20 years, Chinese chemical production has surged tremendously, increasing from approximately 60 million tons per month to nearly 180 million tons per month.

Chemical producers in China were able to achieve such incredible growth because they receive massive direct and indirect government support, including at the national, provincial, and local levels, and because they enjoy an unfair advantage by having access to feedstock at below market prices and by ignoring global norms on environmental and labor protection.

Chemical producers in other countries in Asia are able to leverage China's enormous excess capacity by accessing cheap subsidized feedstock from China and by taking advantage of additional local distortions like the subsidized access to energy.

PANEL CHAIR BOVEJA: Dr. Kohl you have gone over your time. If you could please wrap up.

DR. KOHL: Okay. The result is even more excess capacity that unfairly targets the U.S. and EU markets for producers playing by the rules.

However, China is not the only country which engages in unfair trading practices. The antidumping and countervailing duty predictions filed by the U.S. Epoxy Resins Producers Ad Hoc Coalitions last month alleged that unfairly traded imports of certain epoxy resins from China, India, South Korea, Taiwan, and Thailand are causing material injury to the domestic epoxy resin industry and threaten further material injury going forward.

Imports of epoxy resins from these countries are sold at less than fair value in the United States and also benefit from countervailable subsidies. As a result, domestic producers have lost market share in the U.S. epoxy industry, and its workers are now in serious jeopardy.

If these investigations are successful, additional duties will help restore the level playing field necessary to foster healthy competition and give domestic producers fair opportunities to survive and grow across the American market. All Americans would benefit from such an outcome.

Having domestically produced epoxy resins is vital to the resiliency of numerous manufacturing supply chains that are critical for the U.S. economy.

PANEL CHAIR BOVEJA: Dr. Kohl, we'll get a chance to hear more from you when we get to the Q&A session.

DR. KOHL: Okay.

PANEL CHAIR BOVEJA: Thank you so much.

Ms. Moore?

MS. SHYBUNKO-MOORE: Thank you.

Good afternoon, and thank you so much for the opportunity to testify on behalf of the Aerospace Industries Association. I'm Anne Shybunko-Moore, owner and CEO of GSE Dynamics, a defense manufacturing company on Long Island in New York, and a member of the Executive Committee of AIA.

AIA represents over 330 aerospace and defense companies up and down the supply chain, including my company. Our industry drives economic growth and U.S. global leadership, generating $952 billion in sales revenue and exporting $104.8 billion of goods in 2022. Nearly half of that revenue came from our supply chain.

Our industrial base includes over 100,000 companies across the commercial and defense markets. Unlike other industries, the commercial aerospace and defense industries are deeply intertwined. Defense companies rely on the commercial market for access to minerals, materials, and products at scale, quality, and cost.

Recent geopolitical turmoil has exposed vulnerabilities in our supply chain, highlighting the need to reduce our dependency on foreign sources for minerals, production capacity, and manufacturing. As the administration explores ways to promote supply chain resiliency, AIA is grateful that you are considering our industry's unique needs and that you are listening for constructive ideas to improve the current state of our supply chain challenges.

With the consensus of our membership, AIA has developed several recommendations to strengthen supply chain resiliency. Additional details can be found in my written testimony. Our top-line recommendation is straightforward.

The U.S. Government should implement a comprehensive and collaborative approach to supply chain resiliency, balancing investments in domestic sourcing with flexible regulations that support cooperation with allies and partners. This approach must be developed with engagement from multiple federal agencies and industry leaders.

This approach should consider the critical role of the global market. Historically, bilateral and multilateral trade agreements that reduce trade barriers and increase market access have correlated with growth in our industry. The U.S. Government should pursue these types of agreements when and where possible, while leveraging international trade organizations to promote open market practices and facilitate dialogue.

On the other hand, tariffs, trade disputes, and free trade disruptions inject risk into our supply chains. Mitigating these risks will ensure the long-term health of the U.S.

economy and maintain our competitive edge. Certain trade remedies, such as antidumping and Section 301 investigations, can protect domestic industry. However, they must be appropriately scoped to avoid burning businesses, especially smaller suppliers, with additional costs.

We encourage you to continue engaging with industry to understand how tariffs might affect competitiveness and consumer pricing, among other impacts. In addition to creating an environment that fosters free trade, the federal government must provide policies, funding, and incentives to drive investment in U.S. manufacturing.

Congress should authorize and adequately fund key import-export -- sorry, export-import bank activities such as investment loans and the Make More in America Initiative to maintain global competitiveness.

Expanding the CHIPS and Science Act and the Inflation Reduction Act's advanced manufacturing tax credit and providing additional

R&D tax incentives will also strengthen the domestic industrial base and support industry initiatives to invest in innovative technology and expansion of the workforce. Financial policy incentives and budget stability are crucial for building a more robust manufacturing workforce.

Workforce constraints remain a barrier for A&D companies at all levels of the supply chain as we face growing demand from the submarine industrial base and as a result of global events and initiatives such as AUKUS security partnership and ongoing conflicts.

The U.S. Government must acknowledge that the aerospace and defense industry's supply chain is global by nature. Any approach to supply chain resiliency must prioritize both domestic sources and maintaining international market access.

A 2024 U.S. geological survey found that the U.S. is 100 percent import reliant on 15 of the 49 critical minerals integral to the aerospace and defense supply chain. In some cases, we're almost wholly reliant on near-peer adversaries. Given the military applications of our products, this is a serious risk to our national security and something that the Department of Defense's Natural Defense Industrial Strategy highlighted.

The U.S. Government should provide incentives to support onshoring policies that will increase domestic capability and capacity. But we should also expand our sources of critical minerals and other materials in allied and partner countries by investing in their industrial base capacity and removing barriers to trade.

Lastly, the U.S. Government should continue to promote industry-led standardization strategies, engage in standards development to ensure success, and harmonize international standards development with partners and allies.

Building resilient and secure supply chain requires a comprehensive approach working hand-in-and with industry, and we look forward to continuing close collaboration with you to achieve this shared goal. I do thank you for your time.

PANEL CHAIR BOVEJA: Thank you, Ms. Moore.

Mr. Wade?

MR. WADE: Good afternoon. My name is Jason Wade. I'm a top assistant to the President of United Auto Workers. The UAW represents nearly one million active and retired members. Our members work throughout the supply chain, from academic workers performing cutting-edge research in our nation's universities to engineers, skilled trades, and production workers in the auto, auto parts, heavy truck, AgEMP, aerospace, steel, and other manufacturing sectors.

As a result, we offer a unique perspective on what it will take to create resilient domestic supply chains. UAW firmly believes that a resilient supply chain can only be built by putting workers first. For far too long, our country's trade and industrial policy has been a disaster for working people.

A toxic mixture of bad free trade deals and a laissez-faire industrial policy have consolidated economic and political power with big business, who have repeatedly prioritized another dollar of profit over our families and communities.

Since the 1980s, anti-union policies, deregulation, and austerity have stagnated wages and gutted our retirement security while over the past 25 years, free trade deals have caused a hemorrhaging of over three million manufacturing jobs. This threat of offshoring is ever present to working people.

Every time we fight back and organized or bargained for a better deal, we are threatened with offshoring of our jobs and destroying of our communities. It is economic terrorism, plain and simple. Despite what politicians and talking heads say, working people know the purpose of free trade deals is to punish workers.

Of course, working people are organizing to fight back, but it shouldn't have to be this way. After decades of corporations tripping over themselves to seek out cheap labor and lax regulations in other countries, it is abundantly clear that the market, left to its own devices, will direct investment outside the United States.

What is needed instead is a harmonized, government-led approach to reassure domestic manufacturing. So far, we are encouraged by the Biden administration's attempt to develop a worker-centric trade policy and what we hope are the beginning stages of a much more robust domestic industrial policy.

The infrastructure law, the CHIPS Act, and the Inflation Reduction Act are all a good start, but much more work needs to be done.

First off, creating new manufacturing jobs is not enough. At every opportunity, the administration should work to ensure that federal grants and loans are creating safe, family-sustaining union jobs. Additionally, more needs to be done so that our policies don't work at odds with each other.

We need the entire government to work together cohesively so that our industrial policies and trade policies are pointing in the same direction. But that doesn't always happen. For example, under the IRA, the new 30D tax credit bakes in a North American assembly requirement as well as additional battery and critical mineral requirements.

But the UAW sees the willful misinterpretation of the 45W tax credit. The commercial vehicle tax credit removes all these requirements and allows our tax dollars to flow to imported lease vehicles that don't meet any of the 30D requirements.

Automakers are taking advantage of this loophole so that right now, imported EVs are substantially more likely to be leased than domestically manufactured ones. Further, this lease loophole can end up offsetting any tariff costs, actually enticing the offshoring of electric vehicles. All of this is clearly at odds with the expressed intent of the IRA.

Post-hearing, the UAW intends to submit a full set of comments elaborating our position. But I wanted to take this opportunity to reframe the question of what policies are needed to ensure supply chain resilience. We think the better question is, what is the desired domestic manufacturing level for each of these identified sectors in order to maintain resilient supply chains and communities?

Then we should work backwards from there. In answering this foundational question, we should consider not only the impact of domestic production for national security requirements but also the economic well-being of the United States, its workers, and communities.

This inquiry could be something akin to the Commerce Department's 2019 Section 232 investigation in auto and auto parts where the Commerce Department recognized that automotive imports having a 43 percent market share is weakening our internal economy to such an extent that it may impair the country's national security.

This analysis should also include other core economic factors, like the resilience of our communities, the full impact of unemployment, and what each industry means to the domestic tax base. Further, we should evaluate the research and development skills and job quality associated with the industry and what impact losing that research and skills could have on adjacent industries.

Think back to the heart of the COVID-19 pandemic when automotive engineers had to redesign the manufacturing process to build ventilators, and then autoworkers were the ones producing them. Once we have a clear vision of what the U.S. needs to have a healthy, functioning economy that supports working families and communities, we should use every tool at our disposal to ensure that reality.

In regard to trade policy, this should include but not be limited to strategically increasing most-favored nation rates and renegotiating trade deals to include strong, enforceable labor provisions that lift up workers globally, but also novel approaches like tariff rate quotas or border adjustments to address corporate wage suppression internationally.

For domestic industrial policy, we need to continue to encourage domestic manufacturing that provides good union jobs through grants, loans, and consumer incentives. But also, we need to make sure the shift in balance of power in this country between workers and the billionaire class is changed.

That means getting more creative about how we regulate capital flows, and it means establishing meaningful worker and public control over corporate investment decisions. Again, thank you for your time, and we welcome the opportunity to answer any questions.

PANEL CHAIR BOVEJA: Thank you, Mr.

Wade.

I just want to thank all the witnesses for your testimony. We'll get started with the questions. I just wanted to remind my colleagues to introduce yourselves before you ask the first question, and I also just want to remind all the witnesses please be brief in responding so that you can leave time for others. There is going to be an opportunity for you to provide post-hearing comments as needed, as well.

And I'll just get started with the first question. Ms. Moore, in your testimony, you recommend that the U.S. Government continue to incentivize industry consensus-based standards to uphold supply chain resiliency. Does AIA have ideas for how to act on this recommendation?

MS. SHYBUNKO-MOORE: Thank you so much for your question. And I would say that AIA not only has ideas but is acting already and has been a leader in this industry. They are a collaborative organization that represents the entire supply chain of the aerospace and defense industry.

And this collaborative nature allows us to share conversations about the strains in the supply chain. And obviously, in the last few years, this has been critical to ensure that we talk about best practices and that we discuss the restrictions or the barriers that may be preventing us from growing as a sector.

AIA looks at ideas and access. If there is one word that we will take away from my comments, it's about access. That is what is important, access to capacity, access to labor force, access to material, access to innovation, access to perhaps having lower lead times on material, right? All these things contribute.

And I believe that the Aerospace Industries Association is a leader, again, in driving these initiatives and driving innovation in how we can get best practices and ideas moving forward to support and keep our supply chain resilient and active.

It really is a national defense issue,

and I need to repeat that quite a bit in these talks. It is a national security issue, and we need a robust supply chain in the aerospace and defense sector. And AIA is the lead on that.

PANEL CHAIR BOVEJA: Thank you, Ms. Moore.

For the next question, actually, I'm going to turn to my colleague Ms. Merchant.

MS. MERCHANT: Good afternoon. My name is Stefanie Merchant. I'm with the Department of Commerce on the Aerospace and Defense Team at the International Trade Administration. This is a question for all of the witnesses.

Are the suppliers of intermediate items in your supply chain located in or outside of the United States, and if located outside of the United States, why are these foreign entities considered primary suppliers?

DR. KOHL: Florian Kohl, Olin Corporation. So we're fully backward integrated at our manufacturing site in Freeport, Texas.

And all the epoxy resins that we supply domestically are manufactured domestically. So we're independent, and so are many of our downstream users.

MS. DANIELS: Hi. Kim Daniels, Mercantile Logistics. For my clients, a lot of them import from -- you know, based on rules that were created by previous administrations.

The fact of the matter is it's just the value proposition is so much higher for their primary suppliers coming out of China, for example, that they can't get the same quality and the same cost anywhere else. So most of them do business with other countries simply because there's nothing here that compares on cost and on value.

MR. WADE: We are seeing increased supply base being developed in Mexico, and the largest reason we're seeing -- our belief is because of the suppressed wages that Mexican workers are facing.

MS. WINTER: Meco procures mostly or

all U.S. steel, powder paint, pallets. The only things that we bring in are grids which are chrome-plated, and they have a problem producing those in the United States, due to the chrome plating, with the EPA. So that's an issue for us.

The only other component is the leg kit on our barbecue grill, which is highly intensive labor. And that is -- it drives the price up. So everything else is domestically sourced.

DR. KOHL: The main issue as a supplier that we face of basic materials is the unfair competition from China. It's not a level playing field. Chinese producers have access to subsidized energy, and China really puts national -- their own national security front and center. So economics matter less when you are a Chinese producer.

It's more to have domestic production of critical materials and all aspects of the supply chain in China, and they build massive overcapacities that they then export.

PANEL CHAIR BOVEJA: Mr. Carney, I didn't know if you wanted to add anything.

MR. CARNEY: Yeah. We source from various locations in the world, including low-cost countries, China and India. I guess I would just say the important thing to understand is that our industry is hyper-competitive, and the decisions that we make around where we source are not necessarily voluntary. We have to compete in the market, and the market shapes a lot of decisions we make, which is based on survival.

PANEL CHAIR BOVEJA: Thank you.

And for the next question, I'm going to turn to my colleague from Treasury.

MS. RESNICK: Hi. My name is Bonnie Resnick. I'm with the Trade and Investment Policy Team at Treasury. I have a question for Ms. Shybunko-Moore.

Your submission notes that the United States Government must allocate resources quickly while targeting strategic sectors to maximize the effectiveness of taxpayer investments. And it also urges Congress to consider expanding the CHIPS and Science Act to other key sectors. So what sectors would you consider to be priorities for such an expansion?

MS. SHYBUNKO-MOORE: Thank you so much again for that question. And this is what I think is a positive and constructive answer I hope that everyone will hear. The government is already undergoing an incredible program to not only strengthen the supply chain and target the specific sector of the Submarine Industrial Base under the aerospace and defense. And this is the situation obviously given the situation with the Submarine Industrial Base requiring thousands and thousands of employees and needing to make the requirements for the Navy, they have implemented a program that is working to expand the supply chain. They are reaching out to regional hubs across the nation, one of which is New York. So they are looking at what regions are already performing, right. Which regions are delivering quality products on time with the highest level of quality. And I think by doing that, they are only going to strengthen supply chains of these regions, but also find other regions that can then benefit from that flow down.

It also must be noted that the Secretary of the Navy under this program with the SIB has a talent pipeline program that is effective and working again in five or six different regions right now. It is attracting talent. It is retaining talent, which I think is critical. Many programs just talk about how to get those entry-level jobs. But it is not just the entry-level jobs. We need to retain them, we need to bring them through the continuum of that work force and continue to develop our companies. By developing our companies, we can attract more workers, and attract more importantly more contracts, right, at the end of the day. That is what we are looking for. We are looking for more contracts to deliver to our end-user, which in my case is the warfighter United States. So I want to commend the government for having a program that is already a working model for our industry. And I think others should learn from this and expand it not only in the Submarine Industrial Base, but the entire Defense Industrial Base. And then from there, we can reach out into the other sectors of manufacturing, look at their core competencies.

I was speaking with Whitney earlier. The manufacturing core competencies that she does on her grills, there is no reason why she cannot translate that capability over into the Defense Industrial Base. And I think that's the type of programming and thinking that we have to do. And again, I have to say, I think AIA is a leader in that. They brought in shipbuilding into the Aerospace Industries Association years ago, because they understood that there's a shared supply chain and those core competencies that those people have is critical in expanding the reach of the products that we can make. So again, I commend the government and let's do more of it.

PANEL CHAIR BOVEJA: Thank you, Ms. Moore. Ms. Daniels, you mentioned that policy tools can enhance supply chain resilience in the areas of supply chain tracing and predictability. Can you elaborate on examples of these policy tools?

MS. DANIELS: My favorite question. Yes. There is a group that I am working with directly that is building out a quadra-verified type of tool that will allow for a sort of, think credit score, for supply chain. So for example, you have someone who is purchasing and they could look up that -- whoever their purchasing partner is, they could look up their supply chain risk factor to make sure that they're not going to run afoul of certain laws within the United States. So we are working on something like that, but so far, there's some solutions that are existent based on open-source intelligence which can be very effective but is not always accurate or current. We're trying to basically build it from the bottom up rather than the top down. So there are some people who are working on that. But the big problem is we don't have any money. So trying to find not just investors in an infrastructure project, but also trying to find the right vehicle within the government to help develop this has been very very difficult. We've been working for years trying to find that.

PANEL CHAIR BOVEJA: Thank you. I'm going to turn over to my colleague from Commerce again for the next question.

MS. MERCHANT: This is another question or AIA. Ms. Shybunko-Moore, at the last Paris Air Show, AIA unveiled a paper detailing concerns with certain critical minerals that are vital to aerospace manufacturing. Where does that issue currently stand for your company? What steps are you take to go address it and what additional steps can the U.S. government take to help?

MS. SHYBUNKO-MOORE: Can you repeat that last part? I apologize.

MS. MERCHANT: Sure the last part is, what steps are you currently taking to address the critical minerals issues and what additional steps can the U.S. government take to help?

MS. SHYBUNKO-MOORE: Okay. So I apologize. So AIA is obviously heavily engaged in the critical minerals and my small business not as directly, so I am wearing the AIA hat, so apologize for the pause. So I think the most important thing actually is finding a way to domestically acquire those minerals, right, that is the problem, and as I said I am a small business. The flow down of the difficulty in the larger primes and the larger companies in general being able to acquire those materials definitely affects us all down the river so to speak. So I think it is important that we try and figure out not to be solely dependent on foreign sources for these items. I know we talk about titanium sponge, that's a big one for AIA to talk about. But it is imperative that we work and collaborate and figure out how we cannot be completely dependent on foreign sources, and again, perhaps look at ways to secure it from a domestic way.

MS. MERCHANT: Doctor Kohl, what measures should the U.S. government encourage or work with our allies and partners to undertake to strengthen the epoxy resins market in the United States?

DR. KOHL: Thank you for the question. So you know, we're for international trade and global trade and free trade. We need level playing field to engage in free trade. So consideration of the anti-dumping and anti-distortion cases by the U.S. government are an important element of it. And if you supplement that with local content rules, for example, for investments into wind energy under the IRA, for investments into domestic electronics industry under the CHIPS Act and investments in the Bipartisan Infrastructure Act for critical infrastructure, then we level the playing field.

We support measures like the Section

301 duties that have been levied. But we are also seeing ways to circumvent those duties. There's a lot of epoxy resin that is being imported from Canada, and Canada doesn't have any local production. So Asian players have figured out that there are back doors in Canada and Mexico, so for enforcement would also help level that playing field.

PANEL CHAIR BOVEJA: Thank you. And I guess for the next question I'm going to ask my colleague here from Treasury.

MS. RESNICK: Thank you. This is a question for Ms. Winter. What measures should the U.S. government encourage or work with our allies and partners to undertake to strengthen the metal fabrication sector in the United States?

MS. WINTER: We believe to strengthen the metal fabrication in the United States -- there's tariffs on steel coming in from China. To strengthen the United States, you're going to have to put tariffs on the downstream products coming out of China. We can't compete if we don't have those tariffs on the products that are downstream. So you're putting a tariff on the steel, you're putting a tariff on components that the few components that we need. But in our case if you're not putting a tariff on that competing product, that final product coming in, we're going to struggle. The gap is getting too large between the price in China. Secretary Yellen is warning of the China shock 2.0. We're in the midst of experiencing that as we are seeing evidence of that in our upcoming line reviews. So we have to have some protection so that we can build and grow that. If we can have that protection, we'll be able to move forward and develop new products. We believe that working with places like the manufacturing extension partnerships will help us to support investments, improve technology. We have worked with places like the Oakridge National Laboratory. They're helping with investments and improving the technology, but we need to time and we need to support to be able to explore that and look at opportunities in the defense market. We believe supporting incentives and researching manufacturers that are capable of producing defense components that can be produced domestically. If you work with and invest with those companies and partner with U.S. government, you can insure that you have resilient supply chain.

PANEL CHAIR BOVEJA: The next question is for Mr. Wade. How can U.S. trade and investment policy promote a race to the top through stronger coordination and alignment on labor and environmental protections within trusted networks among regional and like-minded trading partners and allies?

MR. WADE: Thank you for the question. I think for most and all of our FTAs we need to go back and open them back up, ensure that there are labor protections in those. The USMCA provisions around labor environment should be the start not the finish. We've been operating under the USMCA for several years now. I think some of novel enforcement mechanisms have shown some of their limitations, and we need to figure out ways to have deeper enforcement.

But additionally, we should start thinking through other ways to ensure that we have -- you know, especially as we move into these new nascent markets around EVs, make sure that we consider raising our MFN rates on EVs that everyone is talking about this wave of over-capacity in the electric vehicle market. We want to ensure that that investment is being made here and if over-capacity globally can be used to drive up market share, we're going to have a real problem over the long run. So I think, you know, ensuring that trade deals have those provisions and that we have a race to the top both in how we have trade deals, but also our industrial policy. That we look for high road approaches of how we disburse money. IRA and infrastructure bill and CHIPS Act have all these monies. We should be looking towards making sure that as we're working with companies that they're taking the highest road possible, that safety -- health and safety concerns are being addressed, the right to organize apprenticeships everything to lift up the work force in those facilities.

PANEL CHAIR BOVEJA: Thank you. I actually have a follow up question from something you stated earlier too. You mentioned that the EV imports are more likely to be leased than the domestic imports. Could you elaborate on that?

MR. WADE: I don't have the numbers in front of me. I apologize but if you look at, like, KIA their lease uptake post-IRA increased, like, five-fold from sales to leases, and is solely because of the 45W. OEMs are explicitly telling people to move into leases so they can get the $7500 dollar tax credit because they're not eligible for the 30D tax credit. So Tesla, we're not actually fans of, almost all their vehicles are sales because there's no reason from them to differentiate and push people into leases. But what we're seeing across the board is imported EVs are moving into leases so they can catch that 45W. And all those provisions in 30D don't have to be there for them to qualify for that. There's no North American manufacturing requirements, no constituent material requirements that or manufacturing, all of it disappears or evaporates. So all the good work that was put into the IRA is almost taken away through 45W.

PANEL CHAIR BOVEJA: Thank you. This question is for all of you. During the COVID pandemic, were there any specific tools that helped your company get through supply chain challenges? If so, could you please explain how those tools worked? And if applicable, how can these tools be improved? What approaches may be employed to diversify the supply chain and support the integration of new suppliers? And if you would like to raise your hand I can call on you, if that's easier.

DR. KOHL: So what we discovered in the shortages following COVID is, you know, that a more integrated look on downstream supply chains actually helped our customers. They were all missing different components, and as a supplier sometimes we broker exchanges of critical components between downstream consumers. That's a very non-traditional role to play. As a supplier in the chemical industry it's more of a broker between sometimes competing companies, but it helped a pretty rapid recovery from the COVID effect.

PANEL CHAIR BOVEJA: Ms. Daniels?

MS. DANIELS: So as a very small micro-business and a customs brokerage house our biggest hurdle was really communication and just getting the information to your clients as fast as possible. The main thing that we were really missing was more ports in the west coast. I'm sure everybody remembers all of vessels that were waiting off of Long Beach. So right now, Coos Bay is trying to build a container port and they could really use some of funding that they're going after to have more ports happening there so we can kind of leave alleviate potential congestion issues that are going to be coming in the future.

PANEL CHAIR BOVEJA: Thanks. Ms. Moore?

MS. SHYBUNKO-MOORE: Thank you. I think it's another example where actually you stated it in your comments, but it brought us all a bit closer. The breakdown from the large companies down the small, I think we showed just how interrelated we are, and how tight the ecosystem must be to move forward. I think by demonstrating some of vulnerabilities that we all have at different levels of our company, at the end of the day, it allowed more sharing, it allowed more best practices.

And I saw that not only across industry, but again through organizations like AIA. The quick access to information and best practices and how to get to solutions quicker became not only a necessity, but, right, it had to happen. But it also then set the tone for how we move forward and how we collaborate more to solve some of these problems. And then the obvious, I would be remiss to mention the PPP was hugely significant for businesses like mine. We were deemed essential, which also required a definition when we first heard that to make sure we all knew what essential was, and that we indeed were. And the pride and products that we make were and are essential. So the fact that we are able to secure funding and support through that time not only kept my doors open, we did not close one day, we were open the entire time, we continued to deliver requirements to the Department of Defense.

And it also allowed actually to rethink the way we're utilizing that cash flow. We were able to pay our vendors quicker than usual. We tried to flip it quickly so they too could benefit from it. And that flow down, the fast pay, again from the government, was thankful too for that. So payments were coming in quicker to me and then we were able to flip it to our supply chain. So again, to me that's a best practices and that's a model that we need to continue to learn from.

PANEL CHAIR BOVEJA: Thank you. Ms. Winter?

MS. WINTER: MECO, as I mentioned, is mostly a vertically integrated manufacturer. And fortunately the time the pandemic came was in March and our product is a seasonal product, so we were well stocked with the items the few components that we do import. I would have to give kudos to our American workforce who came in like yours every day. We worked six days a week to produce grills. We were the only grill company that was servicing the large retailers when the restaurants closed. We had a dedicated workforce. Really proud of everyone that worked there, and I have to hand it to the employees and Greenville, Tennessee.

DR. KOHL: I would like to second that. Our employees never stopped operating those large continuous chemical units. And also, kudos to the government regulators who designated us as essential and gave us the freedom to operate. I think that was crucial.

PANEL CHAIR BOVEJA: Thank you. Mr. Wade?

MR. WADE: What we realized was how fragile and how critical components were missing from the domestic supply chain, which really informs part of our comments today that we really need to analyze and make sure that we retain core components and core manufacturing competences throughout the supply chain domestically. Where those levels are, I think is open for debate. I mean, we want to make sure we support manufacturing in the United States, and core competences around RND, engineering, production, skilled trades. But what it also did in echoing the other commentators, is it changed the perspective of our members. They've been deemed essential and that was very important for two years or so. And what they found on the back side was that essential designation did not carry through once we got out of the supply chain. So that really has transformed a lot of workers' viewpoint on what it means to go to work every day, and what their place is inside the economy.

And finally, we worked quite a bit with different parts of the U.S. government on the semiconductor shortage, CHIPS Act, legacy CHIPS, et cetera, and PPP and other elements of the response to the COVID crisis and the supply chain disruption. And we really appreciate the government intervention. But what we saw on the back side was the recognition by a lot of companies that the disruption allowed for more taking at the marketplace, which may have been a momentary need or acceptable because of the shortage of supplies. But where we're at now with this runaway inflation which is almost in large -- not all, but a large part driven by corporate profits and not addressing those supply chains, we also need government intervention to pull that back because it's those same workers that were essential three years ago are really hurting due to all this taking in the marketplace.

PANEL CHAIR BOVEJA: Thanks. Mr. Carney?

MR. CARNEY: Yeah. We just echo a lot of these sentiments. We had a lot of employees who stepped up and, you know, were very heroic in that time. We also, you know, we started a classroom within our company so that people -- our employees with children could come and -- because the kids were out of school at that time and did things like that to try and manage our way through it. Some of the policies, however, incentivized some of our employees not to come to work, so we had to put out some extra money. And like the other people here we were deemed essential and received the PPP loan, which at the time was very good, but now we're also because of the inflationary pressure and the rising interest rates whatever the relation is there we're, you know, have higher cost now as a result.

PANEL CHAIR BOVEJA: Thank you. If somebody has any additional response or rebuttal testimony that's been offered by another witness either at this panel or another panel, we have a couple of minutes if anybody would like to respond to anything that's been stated. Mr. Carney?

MR. CARNEY: I was just -- guess I wanted to say that, you know, it's very difficult to compete as a U.S. manufacturer with low-cost countries that have -- in addition to low labor rates they have various low costs across the board, engineering, administration, real estate costs, energy costs, everything. And the one thing that is sort of indigestible to me though, however, is the fact that there is a tariff incentive to locate manufacturing in these offshore countries. A lot of times the actors that we see in these foreign countries are not necessarily good actors. They're trans-shippers of the world and the environment polluters of the world and they don't pay U.S. taxes. They don't pay corporate taxes or payroll taxes.

And I just think that, you know, the questions in this investigation are very on point, but something they're going to have wrestle with is what I tried to outline in my testimony which is fact that if we move our U.S. manufacturing offshore, we no longer have to pay any tariffs or any duties and are competing against companies offshore who don't have to pay tariffs and duties. And so, you know, I tried to propose one remedy here and, you know, open to other remedies, but I think that's something that we're going to have address.

PANEL CHAIR BOVEJA: Thank you. I think Doctor Kohl had his hand up.

DR. KOHL: I'll be very brief. So level playing field really front and center. Asian countries are very methodical about the way that they flood the market with products. and just to put it into perspective for Mr. Wade, the business that I'm responsible for on a quarterly basis loses about $25 million dollars in cash.

And while this plays an important role in the oil and supply chain for publicly listed company, extended periods of cash losses are something very difficult to maintain.

PANEL CHAIR BOVEJA: And finally, Ms. Daniels?

MS. DANIELS: Yeah. I think that we're really getting kicked by the math of it. So we just don't have enough workforce to do what we need to do to be a strong domestic manufacturer. That needs to be resolved first and foremost. I think the interpretation of the regulations needs to be reviewed simply because there's so many ways that you can get tripped up especially in my job. And it's just the way it's interpreted today and then tomorrow it might change. But I've already told my client, no, I can't do that for you. So I think that there is a lot that needs to be reviewed.

I think we really need to consider adding to our workforce, figuring out what that looks like if we're going to really build domestic manufacturing. Because remember China has 1.3 billion people, 20 percent are unemployed. That 20 percent is more than our entire workforce. So that's something to really keep in mind when you're trying to figure out how to better create that.

MS. SHYBUNKO-MOORE: Just a final comment, I think whenever you get a room full of industry leaders, you see the passion immediately, right. We want to be better. We want our supply chain stronger. We want to hire people. We want to produce products. So I guess my final comment is that when you are thinking about where to put your resources or where to put funding, please continue to do this and keep industry engaged. We want the return on investment for you, right, because it helps everybody.

So just please -- you do have working models out there. We see it out there in the individual states that we all hail from. So please continue engaging industry and I thank you again for the opportunity.

PANEL CHAIR BOVEJA: And I just want to thank all of the witnesses. Thank you so much for participating in our hearing. That concludes Panel 9. Thank you.

MR. BURCH: Would the room please come to order?

PANEL CHAIR BOVEJA: Good afternoon. We are going to get started now. My name is Namrata Boveja. I'm the director of industrial trade policy with USTR. I'll be chairing our next panel, which is Panel Number 10. We're looking forward to hearing from all the stakeholders about harbor and software tools and dairy products. As a reminder, each witness should introduce themselves before they begin. And my interagency colleagues here are going to introduce themselves when they start with the first question. With that, let's just get started. Ms. Arrington?

MS. ARRINGTON: First of all, thank you for letting me be part of today's hearing and

I'm going to do by out most best to keep it to five minutes, but I'm a long talker. My name is Katie Arrington and I'm the Vice President for Government Affairs at Exiger, a world leader in supply chain risk management solutions. Prior to working with Exiger, I had the honor of serving as the Chief Information Security Officer for Acquisition in the Department of Defense. My background and career have been dedicated to securing America's supply chains.

Promoting supply chain resilience is not only timely issue, but it is one of the most challenges issues our nation has faced in decades. The U.S. requires a comprehensive approach to ensure supply chain resilience. To be effective, this approach must encompass a range of tools and initiatives. The federal government has already taken concrete steps in the right direction through legislation such as the Invest in Opportunity Act, the CHIPS Act, the IRA, and the Bipartisan Infrastructure Law which further aligns federal efforts with initiatives such as DPA Title 3 funding and the framework within the executive order for defense finance corporation.

These resources have provided a solid foundation to begin strengthening America's supply chain. By leveraging these resources, and most important the coordination effort across government agencies using the important advanced commercial off-the-shelf tools for supply chain visualization, the U.S. can significantly strengthen supply chains, reduce vulnerabilities, and enhance national security and economic stability.

During my tenure at the DOD, I served as lead for the White House COVID pandemic supply chain task force for acceleration. I have understood and seen generated through a collaborative approach between federal government and commercial industry when analyze trade and investment policy. I have seen first-hand that there is a lack of strategic policy aimed at addressing the broad set of challenges facing the

U.S. supply chain. Real-time data needed for policy makers to craft and implement policies that will secure the U.S. supply chain resides within industry.

To develop an effective government investment policy, agencies must partner with industry to incorporate their data and their experience. This collaborative approach will enhance U.S. economic prospects, while also benefitting American allies and partners. Coordinating with industry stakeholders allows for deeper understanding of market dynamics, technological advancement, and emerging trends, as well as promoting innovation, competitiveness, and sustainable growth. In my work daily at Exiger, I see firsthand the resourcefulness and the flexibility that our adversaries are employing to subvert the U.S. government efforts to mitigate threats and vulnerabilities. U.S. trade and investment policies are critical tools that are indelible to promoting supply chain resilience.

However, we need a whole of government approach to reduce our reliance on near peer adversaries and strengthen both our domestic supply chains as well as those of our allies. To understand the vulnerabilities and challenges, we must start at the beginning the supply chains to identify the strength and weaknesses within specific industry sectors. We must identify the raw materials where they are located, how the U.S. currently obtains them. But that is not enough. We must illuminate their entire life cycle up to the delivery of the finished good. This detailed approach will help develop trade and investment policies to better assist domestic industries with tailored initiatives.

In addition, recognizing the U.S. needs to reshore, federal agencies must be able to prioritize and delineate between input such as raw materials for weapons systems and pharmaceuticals. Without a granular understanding of these challenges, government runs the risk of directing capital to parts of the supply chain that will never be market sustainable.

To specifically address the critical need of reshoring supply chains within our country and our allied partners, policy makers should consider using the foreign-derived intangible income provision within the Tax Cuts and Job Act as well as explore the possibility of added existing tools to incentivize investors across sectors that benefit the reshoring of America's supply chains.

Policy makers should also consider extending the time periods in the Opportunity to Invest Act as the race to the top has no expiration. While USTR has several advisory councils, they lack federally funded coordinated data resources to ensure their access to COTS tools that provide supply chain data critical to strengthening U.S. trade and investment policy. One solution would be establishing direct councils that align directly to the CISA-16 -- sorry -- sector supply chain councils created by presidential policy director 21. Each of those sectors already have established councils that USTR could work with directly to address common issues related to supply chain issues. These councils could serve as a platform for sharing the best practices, coordinated efforts, and implementing strategies to address supply chain challenges, to propose tariffs or incentives aimed and assisting the development technical standards and regulation in supply chain resilience.

One effective trade investment policy tool that could be amended further to enhance supply chain security across multiple sectors, is the alignment of the tax incentives and tariffs. The U.S. should incorporate the trilateral commission and AUKUS pillar two by coordinating the measures so that the U.S. and its partners can prioritize economic interest. For example, in the CHIP Act. If semiconductors are manufactured in the U.S., there are no federal subsidies -- there are federal subsidies -- sorry

-- but they do not apply to our trilateral commission or the AUKUS community. Nor did the CHIPS Act address the issue of the wafers themselves for semiconductors. A coordinated approach to subsidies and tariffs supports domestic industries and ensures that the U.S. and its allies can fairly compete on the quality of the product. Access to capital equipment, manufacturing equipment, technology support is critical to supply chain resiliency particularly for small- and medium-sized businesses to form a significant part of manufacturing sector in the U.S.

These businesses face challenges including the cost of labor, the lack of affordable automation capability, making it difficult to sustain operations and remain competitive. To address these challenges, the U.S. needs to consider how important it is to prioritize full automation in manufacturing facilities to reduce the dependence on the workforce. To ensure that countries are --

PANEL CHAIR BOVEJA: I'm sorry. You have gone over your time.

MS. ARRINGTON: Way over.

PANEL CHAIR BOVEJA: Sorry. And if you want to just finish your last sentence.

MS. ARRINGTON: And I'm sorry. Exiger works with clients every single day and our job is to help prioritize the risks. And in helping the government, we need to have COTS tools that we can share open-source data so we can get to the bottom of this. Thank you.

PANEL CHAIR BOVEJA: Thank you. Mr. Bird?

MR. BIRD: Yes. Thank you very much. My name is Gregory Bird. I am the Secretary General of the Global Coalition for Efficient Logistics, GCEL, and I have nearly 50 years' worth of experience being a former executive with Accenture, as a CEO of a tier-one automotive manufacturing company, and as an executive with Exel DHL moving product around the world.

GCEL is a Swiss-based public private

partnership and it was initially founded in Michigan with the support of the Honorable Jennifer Granholm, who was then the governor of Michigan, and the governors of Illinois and Nebraska. Through more than 20 years of R and D, GCEL's coalition of public and private sector organizations is in the process of deploying the world's first digital supply chain platform that provides free of cost integrated logistics operations and finance apps and interactive communication tools to improve supply chain resilience.

This innovative solution has gained the global consensus of more than 150 countries to their pan-regional organizations, 30 IGOs, NGOs and the world's leading information technology firms generating nearly $300 billion in revenues and servicing 60 percent of the global GDP.

GCEL first successfully demonstrated its capabilities of a digital platform to enhance supply chain resilience over the Windsor Canada

Detroit Michigan border crossing. This demonstration received commendations from the U.S. Department of Transportation, as well as congressional and intelligence officials.

We were then asked to testify before a select subcommittee of the U.S. House of Representatives on best practices to protect U.S. borders, and we contributed to the National Security Presidential Directive Number 41, and Homeland Security Presidential Directive Number 13.

In addition, we have measured the supply chain resilience of the U.S. and its global trade partners through a four-year G-20 nations case study involving 90 G-20 industries, IGOs, NGOs, academia, and private sector experts including Frost and Sullivan, the Nielsen Company and Deloitte. In fact, the assessment was completed -- from the U.S. standpoint, the assessment was completed with the U.S. Small Business Administration, Department of Trade, George Mason University, and other industry associations.

Now this diagnostic assessment collected nearly 1.2 million data points across 19 industry clusters covering every economic zone of every G-20 country, and the results were staggering. 90.4 percent of the B2B participants and B2G supply chain participants -- they do not have an integrated system. The financial industry is among the least integrated to the value chains, and 94 and a half percent commonly defined and want new digital e-commerce finance, insurance, and logistics tools to enhance their operational efficiency and their international competitiveness.

But ladies and gentlemen, I need to alert you about a troubling matter. And to be candid I am very disappointed, and I am somewhat mad. Please allow me to read excerpts of a letter we received from the Secretary General of the Union of Arab Banks which represents over 350 Middle East and Africa banks and 20 central banks. The Union of Arab Banks has been a member of our coalition for more than 10 years and understands how a new approach to digital trade can bolster economic growth.

Dear Captain Salloum -- our GCEL chairman -- the Union of Arab Banks believes that the GCEL's digital economy initiative will significantly benefit the BRICS countries by digitizing their value chains to achieve unprecedented global competitiveness. In effect through GCEL's use of artificial intelligence, block chain, and big data analytics deployed by the world's largest technology firms the BRICS members are projected to increase their 2035 GDP by 32 percent and create over 200 million high-paying manufacturing, agriculture, and services jobs. Given the immense BRICS benefits, the Union of Arab Banks kindly requests GCEL to present its digital economy value proposition to the leadership of the Kingdom of Saudi Arabia.

As the only trillion-dollar economy newly admitted to the BRICS, the Kingdom of Saudi Arabia is well-positioned to introduce GCEL's digital economy initiative to the BRICS members towards accelerating their objectives to use national currencies to conduct trade and achieve sustained economic growth. As members of GCEL, I trust the Union of Arab Banks and our strategic partners, the Union of Arab Chambers and the Arab ICT organization would be pleased to accompany GCEL to support its presentation to the Kingdom of Saudi Arabia's leadership.

So upon receiving the letter and that being a U.S. citizen, our organization must notify our government before transferring our innovative supply chain technology to the BRICS countries. Especially since the Union of Arab Banks believes our B2B platform will help the BRICS countries to bypass the Swiss system and adopt a digital currency. Accordingly, we sent the Union of Banks a letter to the National Economic Council, the Department of State, the Department of Commerce, and other White House officials.

To my surprise, their response has

been slow most likely due to the burden of other national security priorities. However, can you imagine, while the USA has historically been the world's leader in innovation, it seems we are dropping the ball. This solution promotes supply chain resilience globally through a geopolitically balanced government structure to protect data privacy, free apps for all to -- yet sustained by unique revenue sharing business model, and a non-monopolistic deployment network involving the world's top technology firms across all four world regions.

So, therefore, I ask the question, are all of us okay with giving the leadership of supply chain resilience innovation to the BRICS countries -- to the BRICS nations? And I would think to the contrary. Thank you.

PANEL CHAIR BOVEJA: Thank you, Mr. Bird. Ms. Rasdall?

MS. RASDALL: Good afternoon my name is Becky Rasdall and I'm Senior Vice President with Trade and Workforce Policy with the

International Dairy Foods Association. Thank you for providing IDFA with the opportunity to testify today. IDFA represents the U.S. dairy manufacturing industry, including products produced and marketed in the United States and throughout the world.

Collectively, the United States comported over $8 billion dollars in dairy products in 2023. Today I'd like to focus on three critical aspects of ensuring supply chain resiliency in dairy. First, it's important to understand how distinctive and complex the U.S. dairy supply chain is. Dairy is a perishable product sourced from animals that have no off season. Milk is harvested every day, twice a day, 365 days a year. This basic fact creates by necessity a supply chain that hinges on consistent and timely deliveries, and cooperation between business partners like farmers, processors, retailers, and other service providers.

And while dairy is a domestically

produced commodity, the production process and required inputs come from a globalized interconnected supply chain that keeps U.S. dairy production innovative and state of the art. In addition, every product across our sector and every supply line differs as they must to accommodate the perishability of products that span a wide geography and meet the nutritional security demands of global customers.

Second, in light of these complexities the potential for unintended consequences resulting from supply chain policy changes is significant. Existing supply chains are well-worn path ways dictated by a complex matrix of business needs, input availability, consumer demands, sustainability goals, supply chain risk, and cost to manufacture. Often this globalized supply chain risk requires sourcing a significant number of critical inputs, ingredients, and equipment from a wide range of sources that are not produced domestically.

The Director General of the WTO has

stated to businesses should be allowed to do manage their own supply chain risks and diversification, and that government intervention should only occur to support wider diversification wherever the investment environment is appropriate. This is a core belief for IDFA members that aligns with their experiences. When ports filled to bursting with containers during the pandemic, dairy products awaiting export backed up so far down chain that warehouses and processors could no longer store the excess products.

The speedy resolution to this dilemma was not government intervention or policy making, but rather the creative collaboration between ocean shippers, IDFA, and the Port of Los Angeles that allowed IDFA shippers to negotiate export options that relieved the stoppage in a period of weeks. Ultimately, onshoring, near shoring, or friend-shoring, and any other changes to supply chains must be done carefully and strategically to avoid unintended consequences that could ultimately reduce resilience and raise prices for consumers.

Third, the U.S. dairy industry is heavily reliant upon a robust and liberal trade policy that provides preferential and competitive access to foreign markets. With upwards of 18 percent of all U.S. dairy production exported, the U.S. dairy industry depends or global customers to keep milk from backing up within its supply chain. In our written comments, IDFA highlighted the fact that our sector currently has over $7 billion dollars in additional investment planned or already underway, creating countless new jobs and facilitating increasing milk production. These investments hinge directly on the performance of dairy exports. For example, if U.S. dairy loses market share in China to a competitor with preferential or zero tariffs or due to China's increased dairy production, the ripple effects will be felt across the entire sector.

The future growth and prosperity of

our industry depends on our ability to export on a fair playing field relative to competitors like the EU and New Zealand who continue to actively pursue preferential market access through trade negotiations, while the U.S. has abandoned full and comprehensive tariff reducing agreements. This impacts the entire dairy supply chain.

IDFA appreciates U.S. tariff collaboration, and we believe there are ways the U.S. government maybe uniquely positioned to support the dairy supply chain. For example, in addition to a liberalized trade agenda that includes preferential access, continued investment in ports and railways, development of standards of supply chain data transparency, and further refinements to the Ocean Shipping Reform Act and its implementing rules are all supply chain policy initiatives that are strongly supported by IDFA members.

Such policy initiatives are vital to our dairy manufacturers that are frequently the rural small- and medium-sized businesses this administration seeks to support. In fact, most IDFA members are farmer-owned cooperatives, family founded companies, women and minority supported businesses, and multinational companies who invest in U.S. dairy because of the vitality and innovation in our sector.

That's why IDFA and its members stand ready to work with USTRA in supporting dairy's complex supply chain by expanding foreign market access and collaborating on existing supply chain policy initiatives just mentioned. Thank you again for the opportunity, and I look forward to answering your questions.

MR. RICE: Good afternoon. I'm Tony Rice. I'm the Director of Trade Policy for the U.S. Dairy Export Council and the National Milk Producers Federation. I'm product of a dairy farm myself and my family still farms in central Pennsylvania. I'd like to say I had a 20-something year unpaid internship milking cows before this current role.

On behalf of America's dairy producers

and processors, I would like to thank you for the opportunity to testify here today. As an export and dependent industry, the issue of how the maximize the functioning of global supply chains is of a paramount importance to the members of the National Milk Producers Federation and the U.S. Dairy Export Council.

U.S. dairy industry exported over $8 billion dollars' worth of products in 2023 crucially supporting thousands of jobs and contributing significantly to the national economy. Representing close to 17 percent of total milk production in the United States, dairy exports and the communities they support rely upon robust supply chains. Comprehensive trade agreements play a crucial role in that process providing a framework for reducing trade barriers and enhancing market access to key partners, resulting in stronger supply chain networks. These agreements in place today ensure that U.S. dairy produced products compete on a level playing field in a highly competitive international market.

Strengthening supply chain resilience further supports the industry's ability to capitalize upon these agreements, ensuring that U.S. dairy farmers and processors can continue to contribute efficiently and significantly to the national economy through exports. The emphasis on resilient supply chains is not just about maintaining continental operational continuity, it's about securing and spending the global footprint of U.S. dairy products in a reliable, sustainable, and profitable manner to the benefit of American farmers and workers throughout the industry.

An inclusive worker-centered trade policy should reflect the central role that comprehensive trade agreements an American exports play for the agricultural economy and the many farmers and workers throughout the supply chain who rely on it. Expanding export sales not only supports America's farms, but also support traditionally under-served workers in rural communities and in companies supplying inputs and services in downstream food manufacturing plant job and in cities with large port facilities heavily dependent upon trade.

Pursuing agreements that build U.S. exporters more firmly into global supply chains by addressing the tariff and non-tariff barriers they face and selling their products internationally preserves the selection of the United States as a highly desirable destination for further manufacturing investment. Companies are in this way incentivized to continue to produce and expand using the United States as a prime hub for manufacturing a wide variety of products needed to meet growing global dairy demand. By fostering an attractive environment for domestic production and leveraging appropriately tailored product- specific rules of origin, we secure the benefits of international trade for American workers and businesses.

As USDR considers how best to foster global supply chain resilience that simultaneously supports U.S. workers and the American economy, NMPF and USEC recommend the incorporation of several key elements and future agreements including the reduction and ultimately elimination of tariffs on U.S. dairy exports.

Protections for the use of common food names such as parmesan, feta, asiago, which are under attack globally from the EU's monopolization efforts, strong dispute settlement provisions to hold trading partners accountable, SPFs and TBT commitments to reduce the likelihood of future trade barriers, and dairy specific elements to address particular trade barriers present in our partner's markets, drawing on the precedent set by annexes for wine and various agreements or the broad recognition of the U.S. regulatory system for processed foods including dairy in the U.S.-Panama trade agreement. Such steps would facilitate smooth, more reliable, and robust dairy supply chains with our trading partners.

In conclusion, we look forward to working collaboratively to enhance international supply chain resiliency and ensure that U.S. dairy remains a global leader supporting not only our farmers and processors, but also the countless other industries and communities reliant upon our sector. Thank you for your attention and for considering our views.

PANEL CHAIR BOVEJA: Thank you Mr. Rice. Mr. Scarpelli?

MR. SCARPELLI: Thank you very much. Is this too loud? I'm sorry. My name is Brian Scarpelli. I'm Senior Global Policy Counsel with ACT the App Association. On behalf of the App Association, I would like to thank you for this opportunity to share our views with the U.S. Trade Representatives and others to assist in the development of objectives and strategies to advance U.S. supply chain resilience and trade negotiations enforcement and other initiatives.

Who we are. The App Association is a not for profit trade association based here in

Washington, D.C. representing thousands of small business innovators and start-ups in the software development and high tech space. As the world has embraced mobile technologies, our members are creating innovative products and services that drive the glob balance digital economy by improving workplace productivity, accelerating academic achievement, helping people lead for efficiency healthier living, et cetera.

And we have some economic studies we've done before. We value the global digital economy that we contribute to and drive to be worth more than $1.8 trillion annually and responsible for over 6 million American jobs. Our members -- relevant for this hearing, our members create innovative software and hardware technology solutions that power the internet across modalities and segments of the economy and are part of and rely on U.S. supply chains and them being resilient and secure.

App Association members are both part of an beneficiaries of these supply chains and reside at every link in the supply chains and utilize them to cost-effectively bring new and innovative products to the marketplace. So we support U.S. government's efforts to strengthen domestic manufacturing and to secure supply chains through strategic arrangements with trusted and regional partners. We commit to working with the administration and others to reduce or eliminate trade barriers that disrupt supply chains and impede small business growth and job creation.

I'm primarily testifying today to highlight that the wide range of digital trade barriers that we elaborate on in our written comments and which we continue to surface in other inquiries such as the USTR's national trade estimate, et cetera, disrupts supply chains and reduce their resiliency.

And this dynamic is made worse by the fact that modern supply chains are themselves digital supply chains in many ways. Across industries, many of us -- many of which use the products and services the App -- that App Association members make cloud applications and new developments in AI, artificial intelligence, are being used to make supply chains more efficient, and digital trade barriers therefore have real world effects of physical supply chains as well.

So we urge USTR and others to recognize the overall impact that digital trade barriers have on supply chain resiliency and to act to mitigate them in trade negotiations enforcement and other initiatives. Additionally, I thought it was worth mentioning, a request we have in our written comments we elaborate on for the recognition and action to address well-documented standard essential patent licensing abuses that have and continue to negatively impact U.S. supply chain resilience.

The practice of some abuse of SCP licensors which we elaborate again in our comments are enabled by ambiguities in U.S. law and policy as well as trade agreements and national laws in foreign countries and those ambiguities are exploited disrupting U.S. supply chains and leaving good-faith innovators unable to rely on indemnities against patent infringement claims from their suppliers.

Further, some jurisdictions abroad such as the United Kingdom have courts that are enforcing global remedies in standard essential patent cases on pain of a national injunction even with the patents at issue may be U.S. patents presenting unique trade concerns that we believe USTR can and should address. The App Association appreciates the opportunity to provide its views. I hope that we can assist here today in this hearing and commit to help any way we can moving forward. Thank you.

PANEL CHAIR BOVEJA: Thank you, Mr. Scarpelli. And I just want to thank all the witnesses for their testimony. We'll start with the questions now. I just want to remind everybody to be brief in responding so that you leave time for others. And then, you can also follow up in the post-hearing comments as needed. With that, I'll just start with the first question.

Ms. Arrington, your submission proposes that the U.S. government promote technical standards and regulations that would apply to what you term "supply chain data" held by private firms to make that data more shareable and therefore more usable in efforts to promote supply chain resilience. I assume Exiger would be included among the firms that hold the supply chain data. Please let me know if that's incorrect.

But either way, can Exiger share about the status of any industry efforts that are underway to develop standards in the supply chain data space to the extent this information is public? And are industry efforts to develop technical standards sufficiently developed to warrant engagement from policy holders? If not, what is the outlook and what can we the U.S. government do to encourage or contribute to this effort?

MS. ARRINGTON: So I appreciate that comment. So right now the only agency that is actually defining what risk is and supply chain risk management is the Department of Defense. They have a taxonomy. It is based on 12 risk factors. They range from financial health to cyber health, FOCI, foreign owner shipping controlling interest.

That is the basis of what our platform works off of. So we take that on both the commercial side, internationally and domestically. And we use those same risk factors. We take into consideration our international partners. You know, all China's regulations, et cetera, are in our platform.

Right now, the federal acquisition regulation hasn't opened. It is called FAR 40, which is to define supply chain. We are actively working on commenting on that to hopefully baseline across all federal agencies what risk looks like.

I would add that I sat on the Federal Acquisition Security Council during my tenure at the Department of Defense. That was one of the key factors to define, how do we share risk with each? But we have to define it first. So USTR could be the lead on that to take and define what the risk categories are and put them into technical requirements that would be needed for commercial off the shelf tools, such as Exiger, to be able to provide the information in real time. That is the capability.

Does that answer your question, ma'am?

PANEL CHAIR BOVEJA: For the next question, I am actually going to turn to my colleague from Commerce, Mr. Cramer.

MR. CRAMER: Thanks for much. Hi. I am Jim Cramer. I am from the Department of Commerce's Supply Chain Center. Thank you for your comments today and the submissions leading up to today.

My first question is for Mr. Scarpelli. And I am coming to this question from a supposition that many of your members are likely characterized as service companies, service providers.

For companies providing technology services, how should the U.S. government consider supply chain risk when looking at those kinds of companies? Should we look at it from like what's the hardware needed? Something as simple as can that company get the computer or the physical data storage that it needs? Or is there something else that we should be looking at when looking at service companies when we think about risk for service providers -- and supply chain risks, excuse me.

MR. SCARPELLI: Thank you. Thank you for that question. That's a great question.

I think that does get at a, I think -- something I kind of fleetingly referred to even in my opening statement a little bit, the rise of the IoT, which I know is something of a marketing term, right? But the idea that connectivity modules could be built into hardware and then managed in real time using distributive cloud computing capabilities by innovative software to make real-time decisions and adjustments. I would urge for thinking about it from that angle.

So, you know, from our perspective, it is less about someone having, you know, for example, like you mentioned a laptop, a physical product and then there are other segments of the industry that I think are primarily focused on that.

But, you know, the affordability, the accessibility to, and the technical feasibility of leveraging the software side of these Internet of Things capabilities is something that makes supply chain issues for us very much general digital trade issues. The idea that cross-border data flows might be inhibited. That data localization policies might be mandated across key markets, raising the cost -- well, undercutting distributive cloud computing service capabilities and raising the cost of using those services, et cetera, I think is in that way disruptive to supply chains generally. And I hope that that helps.

MR. CRAMER: Thank you. Just a quick comment. And so it sounds like, and just to make sure I'm clear, potentially for technology service companies then, data flow regulations is a key topic that we should take into account when looking at risk for technology service companies. Am I hearing that correct?

MR. SCARPELLI: Yeah, absolutely. That's a major priority that we would recommend. I think there is probably a couple other ones. These are all probably tied for number one on our list, but there are probably a couple other angles.

I mean, the ability to leverage strong technical protection mechanisms to secure those data flows is critical, such as end-to-end encryption, which is -- you know, that's very much an issue right now across key markets abroad. For example, the latest development there is a proposal. It exists in Australia and is something that we are working on as well as some other areas, like, you know, the protection of intellectual property rights, copyright, trademark and patent.

MR. CRAMER: Thank you.

PANEL CHAIR BOVEJA: For the next question, I am going to turn to my colleague from Treasury.

MS. RESNICK: Hi. I'm Bonnie Resnick with the Trade and Investment Policy Team at Treasury. And I have a question for Mr. Bird.

Your submission and your statement note that the global coalition has established a digital platform that can optimize supply chain efficiency by enhancing planning and decision-making capabilities of parties.

Can you very briefly give us concrete examples of the operation and the impact of this platform and how these examples relate to promoting more transparent, diverse, secure and sustainable supply chains?

MR. BIRD: So in terms of managing the

risk and having the information available, you have to be able to collect the data from all of the supply chain participants from end to end. And part of the issue that we have today is that systems and small businesses do not have access to these systems.

And so what we are saying is that we have a business model to provide these digital apps free of cost to all of the supply chain participants so then we can capture that data.

When we do that, we are then able to create what is called ultimate data quality. By that I mean data which is captured in real time and which is cross-checked as shipments are moving through the supply chain. And for every transaction that happens within the supply chain, there is a contract. And when you take that contract and convert that contract to electronic performance metrics and then you're able to -- when you measure what's happening, when that shipment is moving from shelf to shelf, we are able to basically compare the contractual to the actual -- to the forecasted -- to the actual performance.

And when we do that, now we are able to basically assess a supply chain risk based on the performance. And we break that down into a multidimensional risk-based performance scoring mechanism in terms of, for example, a quality with another 50 attributes underneath, financeability, ensurability, logistics supply chain reliability, dependability and level of integration and your ESG or your carbon footprint responsibility.

From this, when buyers and sellers come together for goods and services, now you have something by which to make a good decision, whether or not you are -- you should be contracting with that other party.

So this is a just a quick summary of how to properly make decisions if you've got good fact-based information that has been validated by multiple parties throughout the supply chain. And this is key.

PANEL CHAIR BOVEJA: Thank you Mr. Bird. Mr. Scarpelli, in your testimony you state that USTR should recognize and address concerns with standard essential patent licensing abuses. Do you have any recommendations regarding this or can you provide any examples?

MR. SCARPELLI: Yeah. Thank you very much for that question. Absolutely. So just as a little bit of foundation or background, you know, we are talking about a special kind of patent. Regular patents one can exclude for any reason arbitrarily if they would like from others using it and license as they see fit.

With a standard essential patent, that's a patent that is voluntarily contributed to an open, technical interoperability standard and becomes so vital to the use of the open standard, one needs a license to the patent in it in order to even exercise the standard. Recognizing the competitive issues arising with that, standard setting organizations -- and this has been endorsed by competition authorities around the world, including the United States -- have created a construct where at the time of volunteering that patent, the holder of the patent volunteers, open-endedly forever, to provide licenses on fair, reasonable and non-discriminatory terms.

Where it disrupts supply chains -- and this is the leading example, which I think you can find in press about litigation and more broadly business reporting, et cetera, is the auto sector. The auto sector -- and each sector I recognize is different in supply chains and the role of, you know, reliance on indemnities. But, you know, as I understand it, the auto supply chain rather heavily relies on indemnities from patent infringement as you move up in the supply chain.

So where an SEP holder outright refuses to provide a license to a willing and reasonable licensee in violation of the N-D part of FRAND, non-discriminatory, it prevents that component maker from providing an indemnity further down the chain and can be significantly disruptive to supply chains for the auto industry.

I am happy to follow up with much more detail if that would be useful. But I guess the upshot would be -- the prime example right now is the auto sector. What we are concerned about, and I am going back to a marketing term, but IoT, where the same connectivity modules using the connectivity standards that we all -- you know, some of our household names, Wi-Fi, LTE, 4G, et cetera, are being built into IoT widgets, medical, you know, industrial or warehouse management tools, et cetera, will we see that same effect that we have been -- that is well-demonstrated for the telecom sector and is now pretty well-documented for the auto sector in new sectors. That's our fear.

Thanks.

PANEL CHAIR BOVEJA: Thanks. I have a quick follow-up on that. So how can the U.S. government help with the situation? For example, you mentioned in the auto sector and the SEP, can you share your thoughts on that?

MR. SCARPELLI: Yeah, sure. I think that there is a lot that the U.S. government can do. So presently, there is something of a -- going back to I think three administrations ago now, a joint policy statement was put forward by the Department of Justice, FTC and U.S. Patent and Trademark Office which provided clarity as to the meaning of what fair, reasonable and non-discriminatory behavior is in that SEP licensing scenario.

And in the last administration that statement was withdrawn, and it has not yet since been replaced despite one of the first things President Biden doing upon taking office was issue an executive order urging for its adoption again basically, re-thinking and adoption to provide clarity.

So, you know, these are -- there is a contract aspect here. But I think where the U.S. government can make the biggest difference is in reinforcing, from an antitrust or competition law angle, that abuse of a dominant role as a gatekeeper to a standard is a competition issue. And, you know, policy's guidance and enforcement under the existing competition law is, I think, would go a long way to providing clarity to the U.S. ecosystem, U.S. supply chains, but also to our trading partners who continue to look to the U.S. government for leadership in this complex space that is an intersection of patent law, competition law and standardization.

You know, the idea that when an SEP is transferred from one company to another, that FRAND commitment follows the transfer. The idea that when one makes a voluntary commitment to provide FRAND licenses to all who are willing to take one that they have limited circumstances that they can seek an injunction in a federal court or an exclusion order from the ITC and some other specifics that we are happy to follow up on in writing. Thank you.

PANEL CHAIR BOVEJA: For the next

question, I am going to turn it over to my colleague from Commerce again.

MR. CRAMER: Great. Thanks so much. And this is for Ms. Rasdall. In your written submission, you mentioned the highly prescriptive approach of the European Union in promoting environmental sustainability. Could you elaborate on how EU policies such as mandatory climate-related disclosures, or CRD, or the EU deforestation free supply chain regulations, the EUDR, could specifically impact the strength or resilience of the U.S. dairy industry?

MS. RASDALL: Sure. And I would be happy to elaborate on it further if needed in post-hearing comments.

In general, the position of U.S. dairy is that we have been investing in sustainability a long time before the EU introduced their measures, a long time before it became a popular policy agenda item. There are several private sector initiatives that have been underway for years already to try to lower methane emissions.

We feel like we are quite advanced actually in terms of our investment in environmental sustainability here in the United States and the dairy industry.

So to have a trading partner come along and turn those measures into not just public policy proposals but then something that's potentially a trade barrier in the case of the deforestation rule, something that is pretty invasive to be honest when you are requiring photos, aerial photos of where a tree was or was not. You know, that gets into how farms are run and potentially could lead to kind of invasion of privacy and IP for any farm equipment and technology that exists there.

So, you know, I recognize that it's a topic under discussion with the interagency teams that are working with the EU on that, and we are highly supportive of trying to remove the EU from the position of overseeing every tree in the United States or other trading partners.

Also I will just flag that I know

dairy is not a commodity that is subject to the deforestation rule right now, but we just think it's an incredibly dangerous precedent and not how we should be going about environmental sustainability objectives. These are things that the private sector has to lead the way on in terms of the changes that need to be made. So there need to be a less prescriptive approach and more of a public/private partnership, if that makes sense.

MR. CRAMER: Great. Thank you.

PANEL CHAIR BOVEJA: For the next question, I will turn it over to my colleague from Treasury.

MS. RESNICK: This question is for Mr. Rice. In your written testimony, you underscore the importance of securing commitments by our trading partners to avoid unjustified sanitary and phytosanitary SPS and technical barriers to trade, TBT measures, and to protect common food and beverage terms from monopolization attempts by U.S. competitors.

Can you expand on the specific trade barriers that the dairy industry is facing in these areas and how it jeopardizes market access and robust supply chains?

MR. RICE: Thank you for the question. And I can highlight a few here. But in our National Trade Estimate Report submission, there is about 40 pages of these technical barriers to trade, SPS barriers and barriers on geographical indications and how they preclude the use of common names in many markets.

Some of the things we see here commonly is coming from the European Union. To give you a bit of a flavor, we are about the same size of dairy exporter as the European Union taken as a whole.

They export about $2 billion worth of dairy products here to the United States while we export just over a little of $100 million last year alone.

And that's due, of course, to tariffs but also the proliferation of non-tariff barriers that have come up as part of the European Union's attempt to keep out and protect their domestic market.

And this comes in the forms of really onerous certification processes that take a lot of time that are not seen in markets around the world as well as the blockage of being able to sell products like parmesan and asiago, feta. Not only can we not sell those products in the EU full stop, we are increasingly being precluded from being able to sell those cheeses in markets around the world as the EU negotiates trade agreements with new trading partners and blocks out U.S. exporters from those markets into perpetuity.

The EU is very good at exporting their bad ideas. And it is cropping up in other markets around the world as they are continuing to engage in trade negotiations with trading partners in key markets, especially in Southeast Asia where we see a lot of growth potential. But unfortunately, we are falling behind since we don't have a comprehensive trade agreement.

I do mention FTAs quite a bit. Addressing these non-tariff barriers such as SPS and TBT and common names can be done outside of the context of a full FTA negotiation as with IPEF or the negotiations with Taiwan but those agreements typically lack a strong form of enforceability.

So the best way forward, we see it as for our industry and for growth for dairy producers going forward is going to be through comprehensive trade agreements that have tariff reducing mechanisms as well as addressing non-tariff barriers and strong enforceability.

PANEL CHAIR BOVEJA: Thank you, Mr. Rice. Ms. Rasdall, we are interested in learning more about the lessons learned by the dairy sector during the COVID-19 pandemic regarding the unique supply chain challenges that exporters of perishable goods face.

Would you elaborate on these challenges and what tools were helpful to address these challenges and what USTR can do specifically to support perishable products during times of supply chain distress?

MS. RASDALL: Sure. Thank you for the question. You know, I think our comments address this quite a bit but just to add on. We found ourselves struggling to be able to move products, as I mentioned in my testimony, not just to a port -- or not just onto a ship but to a port and then finally as it went on and one with the flow of imported product being so significant and frankly a higher value product than U.S. dairy exports.

The warehouses and the airports backed up. Warehouses on the way to being near the airport backed up, and it resulted all the way down the chain to the point that we had farms that were almost at the point of dumping milk.

So if you have a shelf stable dairy product that does have the shelf life to be exported, like a powder, and you just can't move it in months and months and months because the ports are full, you eventually run out of storage space.

So that's what happens. We spent a lot of time trying to figure out what to do about it. We tried to figure out whether there was a way to sort of expedite ships waiting to enter that would, you know, carry fully perishable products or maybe prioritize goods somehow, maybe they would be medical goods. Maybe they would be goods identified on the basis of national security or economic security, to move quicker.

We thought about an on land sort of expedited green lane if there was a way you could identify the containers or trucks that were carrying perishable goods or goods important to national or economic security and move those to the actual terminals for delivery to a ship faster.

We tried a lot of different things. Ultimately, one of our concerns that kept us from advancing any of those suggestions to the government was unintended consequences, which I mentioned in my testimony. But also frankly the thing that we've talked about here with my fellow panelists, which is just the transparency of the goods. We found that a lot of dairy shippers are not quite as large and don't have direct contacts negotiated to be able manage at scale the movement of their goods. They work frequently with a lot of smaller freight forwarders. And so it is the equivalent of -- the way we talk about it frequently is you can travel and know where you suitcase is at any time, but you would send your shipment off to your freight forwarder and have no idea where it is going, what its disposition is or when it's getting there or if it even got there. And it's a level of unsophistication in that process that is to the point of still just having to make a phone call to a person who is making a phone call to another person to try to find it and figure out where it is.

So if all of this happening with a perishable product, we felt like improvements could be made. One of the key things that we cited in our comments is the data transparency, finding ways for data points in the supply chain to speak to each other.

We are strongly supportive of the administration's logistics optimization works initiative in DOT so knowing the status of the ports and whether they are congested and kind of what the weather is like, if you will, where the goods are moving. But it is equally important to be able to know the disposition of the good without having to pay extra for some kind of smart box to go on a container and know where it is and where it's going.

So that's an initiative we continue to support through ASTM. That's just one suggestion that's in our comments. And I would be happy to take any follow-on questions.

PANEL CHAIR BOVEJA: Thank you, Ms. Rasdall. I am going to turn for the next question over to my colleague at Commerce.

MR. CRAMER: Great. Thanks so much.

And this is for Mr. Bird and Ms. Harrington. When assessing supply chain risk, do you see any possibility of the increased digitization of supply chains which may, indeed, of course, make them more efficient, also perhaps making the more risky particularly in respect to cybersecurity concerns. And if so, how can the U.S. counter that risk? And even if it doesn't make it more risky, what should be the U.S. government be looking out for as supply chains digitize in terms of risk?

MS. ARRINGTON: I can go first. While I was the Chief Information Security Officer at the Department of Defense, I created the cybersecurity maturity model certification so cyber is definitely a part of it.

When we look at Exiger, we culminate the open source internet for about 31 million unstructured pieces of data. We collate that with about 16,000 structured, which would be like LexisNexis, Moody's, et cetera.

We integrate through our algorithm

with AI and machine learning on our platform, but the ultimate decision is in the human analyst that observes all of that information. And that is key to any of the open source COTS capability out there.

In the Department of Defense, there is something called the OODA loop where we always keep a human being in the loop of the decision-making process so we know that our adversaries are out there trying to complicate, disrupt our supply chains and the information that is supplied them. So unless you have a human in there and actually analyzing and saying is this real information, is it pertinent, then that's the only way you can really address that issue.

I hope that answers that question. When we spend -- we are in virtually every single federal agency in the United States, and we work with the Fortune 500. So we are very much adhered to making sure that what the information we are providing hasn't been hacked, hasn't been obfuscated and that it is true and correct information.

MR. CRAMER: Thank you. Mr. Bird, did you have any thoughts?

MR. BIRD: Yes. Thank you. So in terms of the -- from a security standpoint, what we are proposing is that we cannot rely on just one single provider in terms of putting together a platform. And by the way the platform that we are suggesting does not replace existing systems. What we are talking about is bringing together and form a point to world integration to bring all the data sets and the bases together. But the key is it can't be just controlled by one organization. There needs to be a layer, like multilayers, of what we call the global data security standard.

One there has to be a governance layer. And a governance layer would include, for example, four regional councils around the world with say seven to eight semi-government industry organizations from each regional council because when we do trade globally, we have to be able to be sure we gain the trust of everyone together. So you have to have a governance structure to ensure the security and privacy of the data.

And then there needs to be from the technology standpoint, not rely on just one technology firm as a single point of failure, but you have say, three technology firms from Asia, three from Europe, three from the Middle East, three from the Americas coming together and providing the top technology firms of the world that have the data sets and the libraries from all of the requirements around the world coming together and putting the best in class data protection and security as it relates to ensuring that you get all of the necessary firewalls and the protections from that standpoint.

And then you have to have a means by which to have regular performance audits with independent third-party bodies coming in to ensure and to present that all of the necessary safety and risk protocols have been identified. Just a summary in brief.

MR. CRAMER: Great. Thank you. I appreciate it.

PANEL CHAIR BOVEJA: I think we just have a minute left. I just wanted to ask really quickly if anybody has an additional response.

MS. ARRINGTON: Ma'am?

PANEL CHAIR BOVEJA: You have one minute.

MS. ARRINGTON: No problem, one minute. In summary of everything that our company and I have submitted in testimony written the bottom line is that, as Rumsfeld has coined the phrase, the great known/unknown. Unless we start illuminating supply chains on every level from the dairy industry to the software to the automotive industry, our reliance on China right now, especially in national security is weapon systems, we are very -- we are scratching the surface of understanding semiconductors, critical minerals and batteries.

My greater concern, and I think that of most of our clients that we represent, is the unknown that fifth and sixth tier down where we illuminate and we find out that there is, you know, Russia -- you know, we're coupled with Russia and how do we get away from that? How do we decouple?

And taking into consideration that it's a whole of government approach. We are playing Whac-A-Mole right now. And we have to get out of that. And bringing all of this information to bear and being transparent and the ability to share it between agencies is essential to getting to supply chain resiliency.

And thank you for your time today and I appreciate you respecting me and my time going over. I told you I was a long talker.

PANEL CHAIR BOVEJA: Thank you.

MR. BURCH: Would the panel please come to order?

PANEL CHAIR SCHAGRIN: Good afternoon. We are going to get started now. I am Ken Schagrin, the Assistant USTR for Services and Investment. And I will be chairing our next panel, which is Panel Number 11. We are looking forward to hearing from stakeholders about the high tech and digital sectors and a lot of data issues.

As a reminder, each witness should introduce themselves before they begin. And my interagency colleagues will introduce themselves when they ask their first questions. And unfortunately, Adam from the State Department is delayed a little bit but will be joining us.

So let's get started with Mr. Brzytwa and then we'll go in alphabetical order from there. So, Mr. Brzytwa?

MR. BRZYTWA: Thank you, Mr. Schagrin. I'm Ed Brzytwa, Vice President of International Trade of Consumer Technology Association.

Our testimony today provides three perspectives. First, the private sector runs supply chains not governments. Two, reducing trade costs and negotiating trade agreements with U.S. allies and key trading partners will accelerate USTR supply chain objectives. Three, forced localization to achieve resiliency is inflationary, reduces competitiveness and causes unintended consequences.

Based on our industry's extensive experience in operating and diversifying private sector supply chains, we believe that USTR's trade and investment policy initiatives will succeed by taking these perspectives into account.

We urge USTR to review our October 2023 landmark study produced in partnership with the global management consulting firm Kearney, building a resilient U.S. consumer technology supply chain.

On Point 1, USTR's hearing notice suggests that supply chains for all products are risky, that the private sector cannot be trusted with supply chains and that actions to force the onshoring or reshoring of the technology value chain to address those risks may be necessary.

To achieve resilience, USTR seems comfortable with the consequences of these actions, such as higher costs and inflation for the U.S. economy, increased energy demand, environmental impacts and reduced U.S. competitiveness.

USTR should understand that consumer technology supply chains include companies and allies and trading partners. These companies prioritize the reduction of time, costs and uncertainty of moving goods across borders to deliver high quality technology products to as many consumers as possible around the world.

These factors can make or break companies' decisions to invest and innovate in the United States. So what then strengthens consumer technology supply chains?

According to CTA research 98 percent of U.S. households own a smart phone. Eighty-seven percent have TVs. Seventy-five percent own a notebook or laptop computers. These products and many others involve thousands of inputs of materials from a vast array of suppliers around the world. Supply chains for these products must be both efficient and resilient to shocks and disruptions.

Mitigating dependencies on single markets for strategic products is an important objective. Lowering the cost of trade to strengthen supply chain diversification is even more important. Doing so across a range of allies and partners will itself mitigate sole source dependencies.

USTR should lead a whole of government effort to facilitate trade, modernize customs operations, streamline trade measures and reduce barriers that are ineffective at meeting their stated objectives. CTA's post-hearing written comments will detail this approach.

Trade and investment policies should also embrace U.S. allies and trading partners in strengthening supply chains, mitigating risks and lowering costs. Efficient supply chain in these markets are also resilient. USTR's desired policies, such as increased tariffs, would, however, penalize these companies for doing what

USTR seeks.

A CTA study shows a single country cannot support any full supply chain let alone the full consumer technology chain. Such a notion is so infeasible that we are confident that this is not what USTR intends to suggest.

A team approach is the best path forward. To achieve this result, the U.S. must negotiate high standard comprehensive binding and enforceable U.S. trade agreements with United Kingdom, Japan and Southeast Asian nations to reduce trade costs, lower barriers to trade and strengthen the rule of law.

CTA also supports further accessions of WTO members to the 1997 Information Technology Agreement and its 2015 expansion to eliminate tariffs on consumer technology products and inputs and therefore diversity sourcing opportunities.

Sadly, USTR would rather erect than reduce trade barriers. Since October 2023, USTR signaled the trade barriers in the name of the public interest are acceptable and a clear sovereign right. This posture exposes U.S. businesses and exports to discriminatory measures abroad.

USTR should reverse its misguided competition policy and uphold the non-discrimination principle, especially on digital trade. Instead USTR should avoid barriers to trade to achieve resilience. Measures impacting U.S. allies and trading partners can lead to mistrust and retaliatory measures that harm U.S. businesses, workers and consumers and hinder supply chain diversification.

Trade barriers are inflationary, decrease productivity, weaken job creation and suppress new domestic investments and increase poverty. By imposing more costs, increasing uncertainty in the trading environment, enforcing companies to divert scarce time and resources to deal with administrative burdens like short-lived tariff exclusions, trade barriers undermine resilience.

Thank you again for the opportunity to testify.

PANEL CHAIR SCHAGRIN: Great. Thank you. Now Mr. Johnson?

MR. JOHNSON: Thank you for the opportunity to testify today regarding USTR's request on promoting supply chain resilience.

My name is Kyle Johnson, and I am Director of Trade Policy at the Information Technology Industry Council, or ITI. ITI is the premier global advocate for technology, representing the world's most innovative companies to advance competition and innovation worldwide. We provide policymakers with the broadest perspective in thought leadership from technology, hardware, software, services and related industry sectors.

Our industry understands the importance of resilient global technology supply chains is not only a business imperative for companies and customers alike, but it is critical to our collective security.

ITI members service the global market via complex supply chains built over decades in which technology is developed and assembled in multiple countries and services customers across all levels of government in the full range of industry sectors.

To support supply chain resilience, our companies have devoted significant resources, including expertise, initiative and investment in cybersecurity and supply chain risk management efforts.

We commend the Biden administration's prioritization of supply chain resiliency and the progress made to date, such as implementation of the CHIPS and Science Act.

As USTR considers its own contributions to this whole of government effort, the Agency should start its work by increasing coordination and collaboration with other relevant agencies that have been leading on the administration supply chain work today. In that regard, we are pleased to see other agencies are participating in today's hearing.

In particular, USTR staff should utilize the extensive analysis and stakeholder input gathered in previous U.S. government supply chain efforts and to more directly support the many international supply chain dialogues and efforts already underway.

Trade policy is an underutilized yet critical tool in U.S. supply chain resilience efforts.

Pursuing trade openness both for securing U.S. exporters access to foreign markets and in deterring discriminatory or overly broad protectionist policies at home can best support the government's supply chain resilience goals.

The USTR should therefore seek to expand robust binding commitments to facilitate trade, to ensure trading partners adhere to their international commitments and to address tariffs and non-tariff barriers that disrupt supply chains.

Such efforts would also create an

environment that enables companies of all sizes to participate in R&D ecosystems and integrate into supply chains.

USTR should focus on strengthening trade ties with priority countries for supply chain diversification efforts such as in the Americas and Southeast Asia.

Trade commitments, however, are only meaningful if the rules are followed and trade barriers are spreading around the world. ITI encourages USTR to use all tools at its disposal to ensure that trading partners adhere to their commitments.

Further, USTR should engage with allies and trading partners to address any potential barriers to trade and to ensure these policies do not undermine U.S. and global supply chain resilience.

This is particularly important to support the success of supply chain agreements in collaboration efforts with other countries that have already launched, such as the IPEF Supply

Chain Agreement.

ITI also believes that USTR should prioritize efforts to reduce and prevent tariffs abroad and to ensure U.S. tariffs are fit for purpose.

This work should include the rollback of the existing Section 301 tariffs on imports from China, which have raised costs for U.S. based manufacturers and consumers and made it harder for technology companies to create jobs in the United States, open factories and maintain production in the U.S. and compete in global markets.

ITI urges USTR to complete its four year review in the Section 301 tariffs as soon as possible, to share its findings with the public and to allow stakeholders and interagency partners a meaningful opportunity to comment on the proposed course of action.

If it considers imposing any new tariffs, USTR should carefully consider the impact on supply chain resilience and U.S.

competitiveness.

USTR should also work to strengthen multilateral agreements to support resilience in supply chains such as the WTO moratorium on customs duties on electronic transmissions and the WTO Information Technology Agreement, or ITA.

For more than 25 years, all members of the WTO have committed to the moratorium. For ITI members, the moratorium facilitates the internal and external electronic transmissions that can support the breadth of global supply chains, researching, designing and developing innovative technologies, negotiating contracts with suppliers, planning manufacturing processes in line with rigorous quality controls, packaging and testing product security and efficiency, and providing goods and services to clients around the world. Ensuring the continuation of the moratorium must be a top priority for the administration.

The WTO ITA has contributed to the development of global value chains for technology products and services by eliminating tariffs on trade across a wide range of intermediate and finished technology products in participating countries.

USTR should work with trading partners to ensure they live up to their ITA commitments and to secure geographic and functional expansion of the ITA to further support the resilience of critical, global value chains.

To close, ITI believes government and industry must work together to achieve trusted, secure and reliable global supply chains that are essential for protecting national security and promoting economic prosperity and innovation.

We stand ready to contribute to this important work. Thank you.

PANEL CHAIR SCHAGRIN: Great. Thank you, Mr. Johnson. Mr. McHale?

MR. MCHALE: Thank you. Good afternoon. Thank you for the opportunity to testify here today. My name is Jonathan McHale, Vice President for Digital Trade at the Computer and Communications Industry Association, a nonprofit association representing a broad cross-section of communication and technology firms.

Widespread disruptions due to the pandemic and ongoing geopolitical shifts weigh heavily on many policies, including trade. Accordingly, it makes sense to look at how trade policy can help bolster supply chain resilience and boost domestic investment, complementing the Biden administration's domestic industrial agenda.

However, we are concerned that the tone and framing of this Federal Register notice reflects an unsupported assumption that the resilience, like other attributes of the U.S. economy, has been fundamentally undermined by decades of precedent in U.S. trade policy.

We do not believe the evidence supports that conclusion. And, as a premise for policy prescription, this framing may harm, not help, resilience and broader goals of this inquiry.

Many of the ills ascribed to traditional trade policy are tied to specific rather than general effects, such as those attributed to the so-called China shock following China's entry into the WTO.

Those effects were profound. But even the authors of the China Shock paper cautioned that "few economists would interpret our empirical results as justifying greater trade protection." Trying to solve a China problem by upending the trading system writ large would likely undermine the significant benefits past policy has achieved, including with respect to resiliency.

One more note of caution on how this inquiry was framed. The equating of risks to services as comparable to manufacturing: that is a false premise in our view, both in terms of the way services are delivered and the incentives to locate production in specific locations.

First, there are no tariffs in services that trade policy affects, incentivizing one location over another. Second, there is no evidence that the U.S. is experiencing or likely to experience any significant services displacement due to trade.

We have been always highly competitive in services, and trade rules only strengthen that comparative advantage. In two of the biggest categories of trading services, ICT and other businesses services, U.S. exports over the past decade grew 28 percent faster than imports, significantly increasing U.S. surpluses in these sectors.

Turning to the positive contributions trade agreements can make to resilience, there are both general and specific benefits. Generally, binding trade agreements provide the predictability and legal certainty that companies need to put capital at risk and devote resources to building resilient supply chains.

On specifics, I would highlight four provisions from trade agreements that USTR should prioritize that directly address resiliency.

First, binding national treatment commitments in specific sectors are critical to enabling U.S. suppliers to own and control the digital supply chains that facilitate trade, for example, submarine cable networks.

Second, the ability to move data over these and other networks is critical to managing any global operation and to monitoring disruptions.

Third, the ability to encrypt the data is fundamental to deterring cyber threats. And finally, foreign government mandates to require localization of data and/or infrastructure is, from a U.S. firm's perspective, a mandate to offshore.

Apart from economic effects, this is widely recognized as increasing network vulnerabilities by expanding the attack serface available to bad actors and severely hindering cybersecurity best practices.

The United States champion these best practices in the domestic cybersecurity framework, in FTAs and in the related international standards, such as the ISO's information security standards, the gold standard for protecting networks and the data they carry.

Let me leave you with a quote from Peter Swire, a veteran of many administrations and one of our foremost privacy experts in a recent paper entitled, The Effects of Data Localization on Cybersecurity. This conclusion with respect to implementing these standards says it all; "Our analysis shows how 13 of the 14 relevant information security controls would be affected by localization of personal data."

In conclusion, before looking to upend decades of successful policies, USTR's top priority should be to lean into existing time-tested trade tools that have proven their worth in enhancing resiliency. Thank you.

PANEL CHAIR SCHAGRIN: Thank you. And finally, Mr. Whitlock.

MR. WHITLOCK: Good afternoon. My name is Joe Whitlock. I am the Executive

Director of the Global Data Alliance and Director for Policy at BSA.

The Global Data Alliance is a cross-industry coalition of companies headquartered in the United States and allied nations that are committed to high standards of data responsibility, and they rely on the ability to access and transfer information across borders to innovate and create jobs in the United States.

BSA welcomes -- the GDA welcomes USTR's recognition that the United States must maintain close and productive economic relationships with its trusted allies to achieve supply chain resilience.

USTR's efforts to collaborate with allied partners and to promote nearshoring or friendshoring will, however, only succeed if the United States and its allies can commit not to impose cross-border data restrictions and localization mandates on one another for arbitrary, discriminatory, disguised or unnecessary reasons.

I will elaborate here in four respects. First cross-border access to data and digital tools supports the resilience of the U.S. workforce and the U.S. supply chain, which increasingly depends on the integration of AI and other software-based tools necessary to compete globally and to support well-paid jobs in advanced manufacturing, precision agriculture and skilled services.

These digital tools used in sectors, including the automotive, aerospace, clean energy, civil engineering, construction, farming, film production, telecom, transport and many other sectors depend upon cross-border access to information used to enhance U.S.-based R&D, market forecasting, manufacturing, sourcing, logistics, sales, and service processes.

Second, foreign cross-border data restrictions hurt U.S. workers and their families and communities that depend upon digitally-enabled or digitally delivered exports from the United States.

Some 40 million U.S. jobs depend on international trade, 16 million U.S. jobs are in software-related fields and roughly 4 million new U.S. advanced manufacturing jobs are anticipated in the coming years.

U.S. supply chain resilience is also threatened by trading partner imposition of customs duties on U.S. digital exports.

The impact of such restrictions would be borne not only by American workers in semiconductors, pharmaceuticals and other integrated supply chains, but also by small businesses, individual artists, musicians, performers, writers, photographers, software coders and many other small businesses and individual creators.

Third, such cross-border data restrictions also undermine efforts to increase diversity in resilient supply chains. As the United Nations has stated, "regulatory fragmentation in the digital landscape is most likely to adversely impact less well-off individuals in marginalized communities as well as worsen structural discrimination against women."

And I would also highlight for your reference President Biden's 2024 White House Council of Economic Advisors Report, which underscores many similar points.

Fourth, and more broadly, macro and microeconomic analyses performed by the WTO, World Bank, IMF, OECD and independent economists show that foreign cross-border data restrictions harm GDP to the tune of 1 to 2 percent, investment flows to the tune of 4 percent, productivity to the tune of 4.5 percent and small businesses increasing trade costs by 80 percent.

As the World Bank has noted, restrictions on data flows have large, negative consequences on the productivity of local companies.

And fifth, U.S. supply chain resilience and U.S. national security depend heavily on agreeing with our allies on cross-border data norms. This perspective is articulated clearly and explicitly in the national security strategy, in the U.S. national cybersecurity strategy, in the U.S. Indo-Pacific strategy, in many documents relating to the Indo-Pacific economic framework and so forth.

Failure to agree on such norms with U.S. allies brings significant risk. If the United States doesn't set such rules with its allies, then U.S. adversaries will fill the vacuum, and they currently are.

Those governments will be free to replace norms that include the United States, U.S. values and U.S. law with new agreements that exclude the United States and hurt American interests and its citizens.

For the foregoing reasons, it is critical for the U.S. supply chain resilience that USTR re-engage and negotiate with its allies to safeguard U.S. and allied cross-border exchange and mutual access to knowledge, information and data.

Thank you for the opportunity to testify today.

PANEL CHAIR SCHAGRIN: Thank you, Mr. Whitlock. And I wanted to thank all the panelists for their very informative contributions to the discussion.

I will turn now to the question session. And I will ask the first question and then I will turn to my colleagues on the panel to ask questions.

So the first question I would like to ask is to Mr. McHale. Just picking up on -- so the offshoring issue, and we often think of supply chains as they relate to goods manufacturing. But as you all have indicated, services plays a critical role in supply chain resilience.

Can you elaborate more on the relationship between U.S. services exports and supply chain resilience and why the offshoring of jobs that has affected U.S. manufacturing communities does or does not apply to the services sector that is reliant on global data networks? Thanks.

MR. MCCHALE: Sure. Happy to. I think that the criticism of the offshoring in the goods world has typically been U.S. companies putting a factory in a foreign location and being able to re-export the result back to the U.S. It's a valid business strategy, but it certainly has been criticized.

It's not the case in services. The whole point of investing in a foreign market is not typically for production, but rather as a way of engaging with customers and customer care, marketing, et cetera.

There is a -- I believe I have the figure right, over a trillion dollars of sales through U.S. affiliates abroad. Those are services delivered through their investments in that market. They are not producing the services there. The services are often from the U.S. But that is the vehicle to get it over there.

In terms of the data localization

issue, we have got an infrastructure second to none in terms of computing power, competitive ability to supply it through engineering, cheap electricity, land, et cetera. We are a net loser if data localization policies go forward because we always have a comparative advantage in being able to offer the service from the U.S. into the foreign markets through data centers based here.

And so policies that require data localization basically are undermining the existing investments that we have in our own market where you can rely on U.S. workers, U.S. infrastructure, et cetera, to supply the services. Thank you.

PANEL CHAIR SCHAGRIN: Okay. Thank you. I would like to turn to my colleague from the Commerce Department to ask a question.

MS. ENGBLOM: Thank you. Hi. Kristen Engblom from the International Trade Administration. I am with the industry office that covers manufactured information and communication technologies.

My first question will be for Mr. Whitlock of the Global Data Alliance and BSA Software Alliance. Can you give us some examples of how data flows that are not secure could negatively impact physical supply chains and relatedly how should the U.S. government evaluate digital tools and their impact on supply chains?

MR. WHITLOCK: Thank you very much for the question. Let me take the second question first. And I think the question was how should the U.S. government evaluate digital tools and their impact on supply chains?

I will begin with that question just by highlighting that digital tools in the enterprise space so business-to-business tools are a core element and, as Mr. McHale was referring to, a comparative advantage for U.S. companies.

Many of enterprise software tools that are used in a range of different contexts from human resources to accounting to industrial IoT are developed in the United States and widely adopted by U.S. companies.

Those tools -- and I will elaborate on a couple of them -- those tools, however, depend heavily on access to data from around the world to function and to confer that comparative advantage on the companies that adopt them.

Companies that are able to adopt those tools are able to promote higher wage, more skilled workforces and, as was previously referred to, in the services context, deliver services across borders with workers in the United States into other markets around the world. Provided, however, that we do not face -- that U.S. exporters don't face undue restrictions on access or data localization mandates.

In one context, I will just give you one example of such a digital tool, and that would be the digital twins technology, if that's something you are familiar with, has really revolutionized the process of building new manufacturing plants, upgrading processes, designing -- computer-aided design and computer-aided manufacturing in a holistic way that really increases efficiencies for the primarily U.S. companies that have adopted those types of tools. So that would be my answer on the second question.

Then with the respect to the first question in terms of cross-border data and security, this is a common issue that arises in many jurisdictions around the world is the notion that cybersecurity is improved by mandating localization and requiring data to be onshored in data centers all over the world. And nothing could be further from the truth.

I think Mr. McHale referred to the multiplication of data centers around the world through localization mandates as increasing the attack surface for malicious actors, and that is absolutely true.

For those of us who live in the Mid-Atlantic region and in Northern Virginia, we know that a significant number of data centers are centered here in the United States. And so from a physical security perspective, having those data centers remain here, even if they are serving traffic for much of the world, creates a much higher level of security.

The ability to centralize security processes and have a single point of review for security processes is also a significant enhancement in being able to maintain data centers in the United States and serve the world from the United States.

MS. ENGBLOM: Thank you.

PANEL CHAIR SCHAGRIN: I would like to turn to my colleague from the Treasury Department.

MR. HENDERSON: Thanks. Nice to be here. My name is Jacob Henderson. I'm from the Treasury Department. I work in the Office of Trade and Investment Policy.

So that is a pretty good segue. I wanted to ask specifically about cyber. My question is to Mr. Johnson at the Information Technology Industry Council based on his comments. But I recognize that many of you have made comments on this important topic.

To Mr. Johnson, you noted in the comments that you submitted about resilient global technology supply chains being not only important to businesses and consumers, but also to "our collective security", which is something that we just heard mentioned.

Can you speak more about what your members have done to invest in cybersecurity and supply chain risk management and how U.S. policy can further support this important facet of services trade? Thanks.

MR. JOHNSON: Yeah. Thank you for the question. So ITI members kind of really run the gamut in the technology sector. So rather than going really deep on specific examples that might only apply to some people, I will try to speak more broadly about the industry.

Just generally, as I noted in my remarks, companies in the technology sector have thought about and been engaging on supply chain issues for many years, you know, many years before it really popped up into the policy-making space consciousness.

So that includes a wide range of activities and efforts. Certainly, cybersecurity has been a critical part of that. And that includes investments in cybersecurity tools in making sure that the operations are safe. So I would just say, you know, just generally that it is one of the buckets of focus for members as they are thinking about supply chain security in addition to, you know, the normal operational issues and concerns around supply chains. Just are they operating as efficiently as they can? How do we get access to the technologies that we need at any given time? So, yeah.

PANEL CHAIR SCHAGRIN: We will have an opportunity for follow-up, but I would like to turn to Adam from the State Department.

MR. KOTKIN: Hi, good afternoon. Adam Kotkin. I'm with the Bureau of Cyberspace Digital Policy. I had a question for Mr.

Brzytwa.

How can the development of interoperable technical standards and regulations for trusted data flow support supply chain resilience in the ICT and other sectors?

MR. BRZYTWA: Thank you, Mr. Kotkin. That's an excellent question. And this is an issue that I think the United States has excelled at over the years. The United States has been a leader in pushing for interoperable approaches to data flows, for example, through the APEC privacy rules system. And this is a system that, I think, many of you know well where both governments and companies, through various mechanisms, can participate. And I think that gives companies greater certainty that their data will flow across borders.

You know, that doesn't just apply to the movement of data. It really supports the movement of goods as well because you have to exchange in cross-border data flows to operate a supply chain. It's not just all goods, no services.

So I would say the Transatlantic data privacy framework, you know, this is the third name, I think, for that program. But that is a historic approach to working on data flows interoperably between two enormous economies where you see tremendous amounts of trade and investment over the decades. And that, again, gives companies greater certainty that they can move their data across borders, especially for small businesses. It is incredibly important. And I think the inclusion of the United Kingdom, Switzerland, other countries in Europe into that system is extremely meaningful.

The more the U.S. government can replicate these types of interoperable approaches and include other economies around the world so they can raise their own standards for treating data, the better the United States is going to be at diversifying supply chains over time.

PANEL CHAIR SCHAGRIN: I want to give an opportunity for the panelists if they have responses to any of the questions that were asked of others if they have anything to add to those. Mr. McHale?

MR. MCHALE: Yeah, just to follow-up on the last question. Lots of countries do try and come up with their own version of a cybersecurity regime. And I think one of the things that industry certainly appreciates is when the U.S. went through their cybersecurity framework, they worked very closely with industry to figure out what works best for the companies and for the government's goals.

Standards evolved from that as a whole set of ISOs and security standards. I think one of the things that is clear is that to the extent that different countries go down different paths that companies can adapt. You can have two different sets of protocols with respect to your data security requirements.

But from a company's perspective, you are devoting resources to figuring out the deltas and figuring out the differences rather than putting the resources into the one area where they are probably best approached.

So this fragmentation of standards and practices in this area is really a net negative. The FRN did ask on the value of standards. And this is a clear case where you are maximizing the efficient use of resources so people can put them into one uniform approach to dealing with what everybody recognizes is a valid problem, but you shouldn't be running in five different directions in order to solve it.

PANEL CHAIR SCHAGRIN: Thank you. Mr. Whitlock?

MR. WHITLOCK: Thank you very much. I also wanted to follow-up on the question about interoperable standards on data flows as well and point to a couple of -- first of all associate myself with the comments from the Consumer Technology Association as it relates to the global CBPR program and the U.S.-EU data privacy framework. I also want to refer to the data free flow with trust initiative that Japan has championed for some time and that has now been transformed to some extent at the OECD and to an initiative to explore other, you know, initiatives around cross-border data.

I would also like to highlight the OECD's excellent work on, you know, a common set of principles around trusted government access to data by governments of personal data held in the private sector.

All of those initiatives form sort of a common corpus of work among allied democracies and reflect a common set of approaches to cross-border data transfers.

And I want to come back to the core principles that we see in the WTO and that we see in U.S. free trade agreement jurisprudence. And those core principles are countries should not restrict data transfers or impose localization mandates for reasons that are arbitrary or discriminatory or disguised -- they are based on false pretenses -- or unnecessary.

And I would like to highlight why I

think those are very useful common standards when we think about cross-border data transfers with a specific example. And that's an example of what has happened in China in the last few years, right?

China has rolled out dozens of data restrictions and imposed them on itself essentially, creating a huge burden on its own economy and innovation and human rights, obviously, scientific advancement and so forth.

The types of measures imposed in China include very intrusive data security assessments that would fail the test that I just outlined, arbitrary, discriminatory, disguised and certainly way beyond what is necessary, right?

And I would like to contrast. And that is why agreeing upon these principles amongst allies is so important because it creates predictability. And it creates certainty. And it pushes back on, and is a bulwark against the kind of overly intrusive measures that we have seen in China.

And now I would just like to contrast that approach with the much more reasonable focused and targeted approach that we have seen in the White House executive order on American sensitive data and the Department of Justice's Advanced Notice of Proposed Rulemaking.

That approach, which would fall not under this standard but would fall under a national security exemption, a self-judging exemption in the USFTA, but putting that to the side for the moment, the approach outlined by DOJ is very focused. I think the National Security Council has described it as a carefully calibrated national security action. And that's the kind of approach that is a much better model for the world that we should look to.

So I will just start it, going at length just to round this out. In reference to interoperable and international standard for data transfers, getting back to revalidating a standard, an agreement with our allies, that we won't impose arbitrary, discriminatory, disguised or unnecessary restrictions on each other will promote our security. It will promote our values. And it will promote economic opportunity for all Americans.

PANEL CHAIR SCHAGRIN: Thank you. Picking up on that, as we seek guidance on trade policies to enhance supply chain resilience, we are trying to reduce the dependency on untrustworthy actors in these global supply networks.

And you mentioned that unnecessary restrictions on cross-border data imposed by other countries would undermine supply chain resilience in the U.S. but what about the other direction? Do you recommend extra restrictions on data going into countries that we do not trust with the data in order to minimize theft, surveillance and other nefarious actions?

I guess I should direct that to the whole panel, but Mr. Whitlock, you raised that so.

MR. WHITLOCK: Thank you. Thank you

very much. I think that, you know, to begin an answer to your excellent question, one can look to the very extensive advanced notice of proposed rulemaking published by the Department of Justice in consultation with many other agencies.

And there are a number of significant risks that DOJ has outlined. And those risks are serious and must be addressed. And I think -- I assume that all of the associations and groups at the table have provided comments, certainly that the proposal by DOJ, you know, there are elements of it that, you know, we would recommend to be adjusted, and we appreciate their consultative approach and their openness to that feedback.

But putting prohibitions or limits on bulk data broker sales of American sensitive personal data is a reasonable approach. It is also now in a law in addition to being in the ANPRM. And promoting the adoption of security practices that have been developed over many years by the Department of Commerce's National Institute for Standards and Technology for cybersecurity, privacy and AI and other international standards. Promoting the adoption of those types of cybersecurity best practices and standards by a wide array of U.S. companies that are engaged in international commerce and data transactions is highly sensible, and we welcome the focused attention of the Department of Justice on that.

That is not the same, and we certainly welcome the U.S. government's clarification that there is no intention to mandate data localization in the United States. And I think, you know, we can -- it is heartening to see an approach that has been outlined that is frankly less onerous, not just in China, but less onerous than what we see even in the European Union or a number of other countries who have adopted these kinds of restrictions.

PANEL CHAIR SCHAGRIN: Mr. Brzytwa?

MR. BRZYTWA: If I may add, the data localization requirement is, I think, a very blunt instrument that leads to many unintended consequences. I think what the Department of Justice did is trY to articulate a very narrowly tailored approach to address a clear national security problem.

USTR should not be in the business of developing and implementing blunt instruments to affect the marketplace. It has tried that before through the Section 301 tariffs. And at least for our association, we have been crystal clear that the unintended consequences of that set of measures have been quite drastic and have impacted our allies just as much as they have impacted companies in the United States.

So if the United States imposes a data localization requirement that is very blunt and broad and sweeps in companies big and small across all sectors, that is going to harm our long-term interests, and it could lead to retaliation against the United States. And that is something the United States trade representatives should not be trying to move forward. They should not be seeking retaliation by trading partners.

PANEL CHAIR SCHAGRIN: Thank you. Mr. Johnson?

MR. JOHNSON: Yeah, just a follow-up on that thread. So, speaking more generally about U.S. policy towards supply chains and competitiveness issues, I think making sure that those policies don't have all of those unintended consequences baked in, that they're not overly broad, and that they're not unnecessarily unilateral when multilateral or bilateral solutions might be available, I think those are incredibly important in the whole of Government effort on supply chain resilience.

So it should be a consideration of any policy action that USTR and other agents - agencies are considering, you know, what is the impact on supply chain resiliency if we do this action? What is the impact in potentially inspiring other countries to retaliate from a trade perspective or to -- what if they did the same in terms of restrictions or actions on U.S.

businesses or U.S. exports?

I think those are really important considerations. And I think, again, it kind of speaks to the critical importance of USTR being part of the conversation as the whole of Government works on these issues, that USTR is uniquely positioned to advise from that trade perspective, to talk about how policy actions may be interpreted by other countries, and how it may lead to trade ramifications. That's really important on the work on supply chains.

PANEL CHAIR SCHAGRIN: Thank you. My colleagues have further questions or follow-up. Yeah. I have one quick follow-up.

It was mentioned in your statements on the Customs Duty moratorium. Can you elaborate, open this to all, how the imposition of Customs Duties on electronic transmissions, on data would undermine resilient supply chains, and how might that actually be implemented?

MR. JOHNSON: Yeah. I'm happy to say a few words on that. I think there's a lot of potential impacts.

I mean, one thing I would just note is that, again, in terms of ITI membership, our members really run the gamut of the tech sector. So it's companies from all segments, includes manufacturers, service providers, you know, all kinds of firms. All of them care about the moratorium, and all of them are impacted by the threat of Customs Duties on electronic transmissions.

From a manufacturing standpoint or a supply chain standpoint, looking at the moratorium, if the moratorium went away and we were in an environment where you had different countries considering Customs Duties, imposing them in different ways, we run into a lot of fragmentation. I think that would really reduce certainty of companies and their ability to operate around the world.

I think it's also critically important to think about who the leading skeptics and critics are of the moratorium and who the most likely candidates might be to impose those if Customs Duties went away. They are kind of at the center of the U.S. Government's supply chain collaboration efforts right now. I think that's really important, and it kind of -- it would undermine a lot of that collaboration opportunity.

So I think that the certainty aspect is incredibly important. Certainly, the transmissions themselves are critical to operations of the supply chains, as I noted in my remarks as well, so maybe I'd start it there.

MR. MCHALE: Yeah, just to add, Ambassador Tai was on a panel in Brussels a couple months ago, and one of the co-panelists was from South Africa. And he was explaining why he opposed the Customs Duty moratorium, and his point was the reason why U.S. companies can offer services into South Africa is because they aren't present there. And he thinks that a moratorium would be the equivalent of a tariff barrier, forcing you to put a factory in country.

So, again, it's almost a de facto localization, and it becomes a data localization-type effect. And all the problems of, again, artificially forcing localization through, like, a tariff barrier, it raises all those cyber security and resiliency issues.

PANEL CHAIR SCHAGRIN: Thank you.

Mr. Whitlock?

MR. WHITLOCK: Yes. I think the comments in my initial remarks related to the significant impact on U.S. exports in the cultural sector, where we have a significant services surplus in entertainment software and business software and so forth, and those impacts would be undeniable if other countries were to impose Customs Duties.

But turning to a more supply chain-focused question or vantage point, I'd just like to associate myself with Mr. Johnson's response. In the course of our advocacy on this issue, I've been really surprised by the number -- the diversity and the number of different industry groups that are highly alarmed by the prospect of Customs Duties being imposed by countries within existing U.S. supply chains.

And one example there would be the semiconductor supply chain. And this is against the background or -- the backdrop of the United States Government investing dozens of billions of dollars to try to develop semiconductor fabs and manufacturing facilities in the United States.

Even with those fabrication sites developed or located in the United States, a highly integrated, internationally integrated semiconductor production supply chain remains, with chemical formula, designs, schematics, and various aspects of this highly intricate supply chain being worked on by engineers in India, in Europe, in Japan, in Taiwan, and in other major employment centers within that semiconductor supply chain.

The only way that the CHIPS Act will be successful, the only way that those semiconductor fabs will be successful is if we're able to maintain an integrated supply chain that draws on all of the developed highly -- you know, expertise and developed resources among our allied partners that already form part of the semiconductor supply chain.

So I think that before there's any even consideration of the imposition of Customs Duties on electronic transmissions as somehow a favorable idea, there would need to be a very careful assessment of what the impacts would be on every sector of the economy, not just the obvious ones like film and music, but every sector of the economy, and especially those that are of a high, high priority to the Biden administration, such as semiconductors.

MR. BRYZTWA: I'll add one final perspective, and I largely agree with everything my colleague said. Let's talk about the goal. Is the goal for supply chains to diversify them so that they are -- you're not locating production in just one single economy, that you move production into multiple economies? And that's what our study of building a resilient U.S. consumer technology supply chain suggests is that we should be moving production into U.S. allies and key trading partners and away from certain large economies.

If that is the goal, and it's going to take many, many years, the introduction of Customs Duties on electronic transmissions completely undermines that goal. It will make that diversification over time much, much harder and way more expensive, and way more complicated.

This is not just a big company issue. I can tell you, within our membership, we have over 1,300 members, 80 percent of whom are small businesses. The small businesses are trying their best to diversify and source from other countries outside of that one big economy. And they do not want to have to pay Customs Duties on their electronic transmissions.

And when I think about a supply chain, I think about people who envision the supply chain. They create it. They have to communicate with one another. They have to share digital versions of their plans. They have to share data on how they want the production to move forward. They have to share information about prototypes.

If the Customs Duty applies to all of that on an electronic transmission, that production will go away. That diversification will not happen because it becomes far too costly. I don't think that's the intent of what USTR is trying to do here, but a very full-throated voice of support for a long-term, permanent Customs Duty moratorium on electronic transmissions would be incredibly helpful for supply chain diversification.

PANEL CHAIR SCHAGRIN: Okay. I think we are at time. I think we could've gone on for quite some time on these issues, but I have to call it. I want to thank the panelists for their contributions to this, and I look forward to continued engagement on these issues. Thanks.

MR. BURCH: Would the room please come to order?

MR. BAN: Good afternoon, everyone, and welcome to this final panel, panel 12 in our hearing on promoting supply chain resilience. I'm Victor Ban, Special Counsel at USTR, and it's a pleasure to kick things off.

I'll note that we have been discussing the importance of diversified supply chains, and I have to commend our panelists for being on perhaps the most diversified panel of the hearing. We're going to hear from a range of industries and hear on a range of issues as well.

And so, without further ado, I think we'll jump in. Of course, we'll have our interagency colleagues introduce themselves when they ask questions as before, but let's go ahead with Mr. Bernstein.

MR. BERNSTEIN: Thank you very much. My name is Jason Bernstein, I'm testing on behalf of the American Chemistry Council and its more than 150 member companies that engage in the business of chemistry.

Actually, it's appropriate, I think,

that we're helping wrap up today's hearing, as the U.S. chemical industry plays a vital role in the U.S. manufacturing sector, supplying critical and innovative materials and inputs from all the sectors outlined in USTR's request, as well as for most of the products in sectors discussed in today's and this week's testimonies.

To provide just a couple of examples, production of semiconductor wafers relies on no less than 500 specialty chemicals. Chemicals like PVDF -- polyvinylidene fluoride for you chemical nerds -- ethylene carbonate, and fluoropolymers are key parts of the lithium-ion battery supply chain.

Without sustainable U.S. chemical production and investment, even the best-intentioned trade and investment policy initiatives to re-shore, friend-shore, or support greater supply chain resiliency will likely fall short.

Therefore, we ask the USTR and the administration, as a start, to ensure that any supply chain-related trade, investment policies being considered for sectors in the request also include the related chemical supply chains to ensure that these policies do not undermine planned and future domestic investments.

If the Biden administration works to, basically, make simple U.S. supply chains more resilient, we think it can learn more from bright spots in the U.S. economy, such as domestic chemical manufacturing.

While the U.S. chemical sector enjoys a positive trade balance and is responsible for more than ten percent of U.S. goods exports, we are facing increasing supply chain pressures due to both excess global capacity of many chemical and chemical-derived products, and both domestic and foreign regulatory trade barriers. These are having a direct and significant impact on U.S. chemical supply chain resilience.

And there is a role for trade policy and initiatives to address such issues. First, USTR should use current trade agreements and negotiate new agreements with like-minded countries to combat anticompetitive practices and to strengthen our regulatory cooperation so that we are less dependent on countries that do not share our trade and supply chain objectives.

In fact, we already have a template for such agreements. Under the USMCA annex on chemical substances, which has specific improvements over NAFTA to facilitate trade through supply chain resiliency, including ways to support and develop deliverables for existing North American working groups in supply chain resilience, including specific products like semiconductors and critical minerals and infrastructure. North America is our largest trading partner, and the chemicals annex would serve as an effective model to start addressing such specific supply chain issues.

Second, USTR should take a greater role to ensure consistency in the implementation of domestic federal regulations and incentives to better promote domestic chemical production and investment. Tax and manufacturing credits, such as those under sections 45X, 48D, and 30D of the IRS code, should not limit incentives to produce and use chemicals as they are currently drafted.

The proper implementation of these regulations will actually lessen our dependency on imports from countries that do not share our supply chain objectives, as well as on trade measures that unnecessarily distort markets for materials which our producers need to produce domestically.

Of course, other countries will always provide some materials we need to produce chemicals which cannot be fully produced domestically. Therefore, we think this should be combined with reduction and elimination of a focused set of tariffs, such as the miscellaneous tariff bill, necessary for members to make highly advanced and often environmentally sustainable chemicals right here at home that actually improves our competitive position with respect to other countries.

Third, we think there should be a renewed focus on TBT and foreign regulatory barriers and violations of IP and patent productions that impede domestic production and exports. Many of these barriers directly increase our supply chain vulnerability by restricting our ability to conduct global trade and pressuring other countries to cut U.S. chemical production out from their supply chains.

This isn't just imaginary. Proposed U.S. -- EU restrictions on the production and trade of silicone materials will have a significant effect on our supply chain resiliency, especially for critical value chains such as semiconductors. And issues of patent infringement are expected to become worse as numerous foreign companies have announced production of our members' patented products.

We are concerned that the USTR has scaled back how she references TBT and regulatory issues. And we would urge USTR to look at this issue as a supply chain perspective in future trade initiatives, as well as negotiate to remove some of these specific TBT barriers on product that directly affect our long-term supply chain resiliency.

Thank you for the opportunity to appear today. I'm happy to answer any questions.

MR. BAN: Thank you, Mr. Bernstein.

Next, we'll hear from Ms. Bliss.

MS. BLISS: Thank you very much, I appreciate the opportunity to present testimony on behalf of the Coalition of Services Industries. I'm -- my name is Christine Bliss, and I'm the president of the organization.

Our members include companies that provide financial services, information and communication technology services, telecom, express delivery logistics, media and entertainment distribution, and professional services to all sectors of the economy. Our members include companies both large and small, and our members also include manufacturers. And we operate in all 50 states and nearly 200 countries.

Services and manufacturing have long been intertwined, and digitization has deepened that relationship. U.S. manufacturing companies use, produce, and trade in services in every step of the manufacturing process, from telecommunications to financial services, accounting management, after-sales service, maintenance, and repair.

On a value-added basis, services have grown to comprise about half of the total value of U.S. exports. Services content accounts for an estimated 31 percent of the value of gross exports of manufactured goods in the United States.

Seamless communication and logistics within firms or between suppliers and intermediaries become key to a company's ability to participate in integrated production networks both domestically and internationally. Barriers to services and digital trade can undermine the operation and innovation of these supply chains.

Many of the services integrated into the manufacturing exports are now digitally enabled, and digital technologies are being deployed by businesses to promote supply chain resiliency.

Digital technologies are utilized to create better visibility across supply chains, which helps companies avoid stockouts and overstock situations. Artificial intelligence and machine learning enhance the accuracy of demand forecasting, enabling companies to anticipate market trends, fluctuations, customer preferences with unprecedented precision.

Digital technologies also made supply chains more sustainable. By tracking products and materials throughout the supply chain, businesses can identify opportunities to reduce waste and improve resource efficiency.

For services and digital firms, trade and investment abroad is not motivated by a race to the bottom. Considerations such as low-wage workforce or weak labor and environmental standards are not a factor. Many services sector, such as financial services, telecommunications, and some professional services are heavily regulated, and therefore, are required to establish a presence in foreign markets in order to offer their services.

And many of these services, as well as others, such as distribution and transportation, must be close to their customers to provide services. And that's why services have so many foreign affiliates. Establishing abroad in order to meet regulatory local requirements to meet customer needs does not come at the expense of U.S. workers. Rather, it supports U.S. job creation.

Service providers operating through investments in foreign markets employed more than 20 million workers at headquarters and other U.S.-based locations to support these foreign operations. The jobs in these foreign affiliates could not be re-shored. They simply would be lost U.S. market share and replaced by foreign competitors, as well as undermining U.S. jobs that these activities support.

There's been a concern raised that call center and medical processing of records have been offshored to the detriment of U.S. workers. However, technological developments and efforts to improve customer service have actually prompted re-shoring of U.S. services jobs in call centers over the past decade, facilitated by the work-from-home trend and the appeal of American customer services representatives. Medical records processing jobs in the U.S. are also expected to increase.

I would also point out that in terms of discouraging off-shoring, South Africa, Indonesia, and India, in particular, have opposed the continuation of the e-commerce moratorium on the grounds that they want policy space. South Africa and Indonesia, in particular, have articulated that this policy means that imposing duties on e-commerce, they want to force local investment.

So it is critical that the U.S. continue to support the WTO e-commerce moratorium and the JSI permanent e-commerce moratorium, not only to avoid supply chain disruption but also to push back against forcing local investment that might not otherwise take place.

Promoting a robust and digital services trade agenda will promote U.S. exports of manufactured goods and ensure the availability of innovative tools to make supply chains more resilient.

Currently, other governments are negotiating agreements to provide for cross-border data flows, prohibit data localization, and set the interoperability of standards for emerging technologies like AI, as well as developing best practices for responsible use of AI.

Such agreements and the development of best practices in the eventual disciplines will influence supply chains for years to come, and governments are writing these rules without the

U.S. Cross-border data flows are fundamental for U.S. manufacturing firms to leverage emerging technologies to make their supply chains more transparent, responsible -- responsive to potential shocks, and more sustainable.

Forced localization of data processing and storage disrupts cross-border data flows, impacting the coordination necessary for resilience. It's necessary that there be alignment between the U.S. and other governments --

MR. BAN: Ms. Bliss, I'm just noting you're a minute over.

(Simultaneous speaking.)

MS. BLISS: -- standards.

MR. BAN: I just -- yep. If you could, please wrap up since you're over time. Thank you.

MS. BLISS: Yes. I will. Just, my point is the importance of alignment with other countries on technical standards, in this regard, to support supply chains and also that supply chains would benefit from the streamlining and simplification of customs procedures.

And we hope the USTR will work with foreign partners and industry in developing trade and investment policy to promote more resilient supply chains. Thank you.

MR. BAN: Thank you, Ms. Bliss.

And just an administrative matter before we turn to Mr. Maybarduk, his time allocation will be two minutes as he is splitting time with his colleague, at Public Citizen, Ms. St. Louis, who appeared on panel 7 earlier today.

So Mr. Maybarduk, you have your two minutes.

MR. MAYBARDUK: Thank you. Here, at the end of two days of testimony, I know your offices will be working hard to analyze and absorb. I'd like to leave you with just one more important idea, and that is global health, and many lives worldwide, also depend on supply chain resiliency.

And global health needs greater and

diverse production worldwide, not only in the U.S., so that every region has and can produce state-of-the-art medical tools timely and affordable and thereby stamp out pandemics more quickly to the benefit of all. We'll all need to be sensitive to this in our deliberations.

During COVID, more than one million people died for lack of timely access to existing medical tools. Access to mRNA vaccines, diagnostics that were already on market, were not available to a majority of the world's population for more than a year.

And even in the United States, nearly half of U.S. deaths at the height of the COVID emergency were from variants, meaning that the longer pandemics endure abroad, the more suffering comes back to bite us here in the United States.

Now, the world has taken lessons from this. For one, we should be adding capacity but not displacing -- not seeking to displace the existing effective capacity. So our policy should be right size to recognize, for example, the importance of affordable production of India, on which much of the world's population relies.

Secondly, supply chain policy should not undercut U.S. global health commitments to regional production and local procurement across the interagency. U.S. agencies are committing quite a bit to regional production and local procurement. We have to support that.

And finally, a policy should not only be a subsidy -- a taxpayer subsidy of big pharma with little benefit to health. Any incentives that we're providing, for example, tax breaks or funding, should come with accountability, transparency, site inspection, a role for the Federal Government ensuring access to quality supply.

If we do these things, we'll support Americans' health access and global health in partners abroad, and we'll fight pandemic spread as well. Thank you.

MR. BAN: Thank you, Mr. Maybarduk.

I will start the question-and-answer portion with a question for Mr. Bernstein.

So you call, in your written submission and then you noted, I think, in your testimony as well, for negotiating sectoral agreements on chemicals with like-minded trading partners, specifically, that would, among other things, combat anticompetitive practices. Could you give some examples of the type of anticompetitive practices of concern to ACC?

MR. BERNSTEIN: Yes. Thank you for the question. I would be happy to. Many of the anticompetitive practices that we're seeing are new regulations that are actually not based on science, that are beyond international standards, and other things specifically meant to cut U.S. out of the supply chains.

I know I just gave an example in our testimony of some of the EU restrictions on silicones. That's exactly what these are meant to do. These are higher standards. These are not based on international regulations.

But even more importantly, what the EU is trying to do is say not only are we -- we're going to restrict this with ourselves, but other countries that trade with the United States also have to adopt the same regulations. That is actually where we have some specific problems where we see specific anticompetitive practices.

We also see these things, specifically on things like CBI -- and this is something we were talking about, IP and patent protection -- 100 percent compositional disclosure that basically says that we have to provide all our trade secrets in order to provide -- to actually have supply chain relationships or connections. Obviously, that's going to be very difficult for many very detailed products.

But this is one -- a couple examples we're seeing of many countries who are adopting -- I would say there is kind of a range of areas where we're seeing them, but those are some specific examples where we're seeing some of these practices.

MR. BAN: Thank you, Mr. Bernstein.

Ms. Bliss, you testified about services generally as an auxiliary support to supply chains for goods. And I think this echoes some of the things we heard earlier, on the prior panel, services being supportive of supply chains, enabling supply chains. What's your view on whether we should be considering supply chains for services as a standalone matter?

Just to give an example, let's say you're a consumer of call center services that you referenced in your oral testimony. Those services may be offered through your bank. Would you think of that transaction as implicating a supply chain? And if so, to what extent do you think transparency, diversity, security, sustainability of that services supply chain would matter?

MS. BLISS: Well, I think we tend to see services generally integrated across every sector. There may be instances where there are aspects that are services unto themselves a supply chain. I think those examples are less frequent because services are so integrated into every other sector.

I think maybe the best example I could think of would be in the ICT sector where you might have an example of a supply chain that existed on a cross-border basis, but I don't know that looking at that independently of supply chains more generally makes a lot of sense just because there is such intertwining and integration with all sectors across the economy.

MR. BAN: Understand. So it seems like you're comfortable thinking about supply chains as primarily goods focused with service often being integrated into those goods supply chains. Is that a fair summary?

MS. BLISS: Well, I wouldn't agree with the statement that supply chains are primarily good-focused. They are also involved in the delivery of services, but I guess I would -- I would suggest a more integrated approach where you look at goods and services, but you don't look at services in a silo necessarily because I think a lot of the same factors come into play.

So that -- that's really -- but just to correct if I created the impression that we were looking at supply chain as primarily good supply chains because, certainly, if you look at clean energy, climate change, there's a huge amount of -- yes, there are goods pieces, but there's a huge amount of services and digital aspects to those supply chains.

But again, I would say more integrated looking at both sides and the impact, particularly on services.

MR. BAN: Thank you. That's helpful.

Mr. Maybarduk, from a consumer perspective and from Public Citizen's vantage point, you underscore the importance of quality and price when it comes to access to medicines. And certainly, that is -- those are important dimensions. And the quality aspect, I know it would seem to correspond to the security dimension of supply chains in the framework that USTR has laid out.

What's your view of consumer attitudes towards supply chain transparency, diversity, or sustainability when it comes to medicines?

MR. MAYBARDUK: Well, I thank you. In addition to COVID shortages, we have medical shortages worldwide at the moment that are quite serious. And there may not be a silver bullet, but some things that we can do include encouraging transparency into the supply chain, a role for companies to report what they -- when they expect a shortage, and for FDA and others to have insight into that supply.

There's the opportunity to look at whether the U.S. Government should be further invested in producing, perhaps under a Government-owned/contractor-operated model or otherwise, certain health essential generic medicines, for example. And we certainly want to ensure price accountability as well, to the extent that we're -- that we're providing any subsidies.

Several stakeholders, over the last two days, have endorsed, I believe, the Medical Supply Chain Resiliency Act. As I understand the Act, one significant problem with it is it would seek to swaddle drug makers in excessive patent protections, which has very little to do with supply chain resiliency.

To the contrary, patents are monopolies, and they tend to constrain supply rather than liberate it. So we should be looking to be more open with intellectual policy and more facilitating of technology transfer if we want to open up more sources of supply internationally.

One -- you know, one more significant sort of global aspect to this was again, at the height of the COVID emergency, the United States prioritized allocation of materials to U.S. suppliers under the Defense Production Act. And I heard this referenced yesterday.

Something, generally, you know, we encourage use of the Act, but you know, to my first point, we have to be sort of mindful of there were allegations that that advancement of supply to U.S. manufacturers, that preferential treatment of U.S. manufacturers led to very significant delays or production out of the Serum Institute of India and other global manufacturers on whom the world was depending and waiting for a global supply of vaccines.

Now, I think history is somewhat contested, but if true, it sort of underscores -- underscores the sensitivity of when we're -- when we're trying to advance and increase U.S. production, how mindful we need to be of maintaining the integrity of global production because again it's a humanitarian concern.

But also, if we don't get medical supplies timely to people who need them around the world, pandemics last longer and more people die at home, and the economic damage lasts longer. So when it comes to pandemic preparedness policy, which is a major subject of global debate right now, it really is one world.

And we should do everything we can to add capacity here, in the United States. We're very supportive of diversifying supply. We're very supportive of bringing new producers and new capabilities online in the United States. We think that's critically important, and it has to be done also with an eye on the global supply and on consumer -- well, accountability on behalf of taxpayers for the deals that we're cutting.

MR. BAN: Thank you, Mr. Maybarduk.

I'll turn the floor over to my colleague to my left, Mr. Henderson.

MR. HENDERSON: Thank you. Pleasure to be here. My name is Jacob Henderson. I'm at the Treasury Department's Office of Trade and Investment Policy.

So I have a question for Mr. Bernstein. And you spoke a little bit about this in your comments, but I welcome you to provide additional examples here.

So you proposed increased enforcement of present agreements like the USMCA and its annex on chemical substances, with a renewed focus on supply chain resiliency. Can you tell us a bit more about how the USMCA and the annex on chemical substances affected North American trade in chemicals, and how can these instruments be improved? Thank you.

MR. BERNSTEIN: Thank you for the question. Very happy to answer that. Yes, the USMCA annex on chemical substance was actually, I would say, given a thought of forethought. At least in -- even though the text is there, it actually hasn't been actually implemented or enforced into actually how we promote supply chain resiliency, specifically on chemicals.

There's actually six areas under the USMCA chemical sector annex that actually talk about how we promote supply chain resiliency specifically. And that's on safety data sheets, GHS, CBI, scientific criteria, risk assessment, and chemical inventories.

I know that's a long list, but one of the things these could actually be done is, for instance, for things like semiconductor supply chains, which involve a lot of specialty chemicals, or things like lithium-ion batteries.

The USMCA can actually talk about how we exchange chemical data. Mexico doesn't even have a chemical management system so far. The purpose of the USMCA was to adopt one so we can actually build stronger supply chain relationships.

So we can use things like the chemicals -- so the chemical annex to build some of that North American supply chain resiliency so to be very -- we're not dependent on other countries for that. It's actually better for us that we are a little bit more close to home and closer to our final supply.

So those are specific areas that actually the USMCA chemical sector annex envisioned. But now, to actually -- we would like to apply that for actually specific supply chains, including some of the specific supply chains outlined in USTR's request for comments.

We think there's actually both specific products and things that we could do under that.

Even, in fact, the three chemical associations had a meeting last year. We actually talked about some of the specific supply chains. And with some government, I think, coordination around them, we could build, I think, that -- some stronger supply chain resiliency around some of those specific products.

But also, where it's applied to marine debris and recycling and protecting -- sorry -- removing plastic pollution, there's actually certain things we can do to promote recycling of plastics, which we're trying to build is a North American advanced recycling facility. We can actually use the USMCA's specific provisions to push that and promote much more recycling, so plastic pollution isn't being dumped in our oceans, and it's actually being reused to make products right here, in North America. So those are just a few examples.

MR. HENDERSON: Thank you.

MR. BAN: Mr. Cramer?

MR. CRAMER: Thanks. Hi. Good afternoon. I'm Jim Cramer. I'm from the Department of Commerce's Supply Chain Center. Thank you for the testimony and for your organizations' submitting in preparation for this.

I'm going -- a question for Mr. Bernstein. I promise we're not picking on you. Just real quick, I appreciated the stats you had. I think it was on lithium-ion batteries that there's 500 chemicals or so that go into that. Do you guys have the similar statistics for the semiconductor and clean energy sectors?

MR. BERNSTEIN: Yes. Sorry. We do. I'm not sure the number of chemicals, but we do have actually what we call the main chemicals, where they're produced, for several different supply chains. We can happily provide that in our post-hearing comments, going down some of the specifics. So we have lithium-ion batteries. We actually have agriculture, healthcare, and semiconductors, including to EV batteries.

MR. CRAMER: Okay.

MR. BERNSTEIN: So those were just a couple of examples, but we do have some more on that.

MR. CRAMER: And is it -- I guess agricultural chemicals in the ag sector?

MR. BERNSTEIN: Yes. We -- yeah, agriculture is actually another part of that. Actually, some of the specific fertilizers that we are -- that these are some areas where there is specific supply chain concerns about having enough sufficient supply chain of some of these fertilizers for domestic -- in fact, it's one of the reasons why it's causing some of the inflationary aspect of the agricultural sector is because of the lack of domestic supply that we're seeing on some of the agri-chemicals.

MR. CRAMER: Perfect. Great. That was my basic question. More deeply, and again for Mr. Bernstein. In your comments, you noted that you have specific suggestions as to how to build supply chain resilience through circular and sustainability initiatives in both the WTO and via U.S. trade and investment policies. Could you elaborate as to some of your top-line recommendations in support of supply chain resilience?

MR. BERNSTEIN: Sure. Yes, I have to admit we did write a little paper on this.

MR. CRAMER: Okay.

MR. BERNSTEIN: Sorry. I guess we write a lot of papers, and we're happy to provide that. But one of the best things we could do is promote basically common definitions and standards of certain things that promote environmental sustainability. A lot of the times, when promoting sustainable supply chains and looking on trade and sustainable supply chains, is we don't even have common definitions of things like waste, feedstock, use of chemicals.

These are kind of, I would say, simple

things we could use within the World Trade Organization to come to some common ideas to promote environmental sustainability in chemicals. So there's an area of common definitions and standards, some trade capacity-building work, even some best practices and principles that we could use.

And I think, there is -- actually, I think, to identify some of these trade barriers, I think one thing we've indicated to the World Trade Organization is, under the trade environmental sustainability structure discussions, under the dialogue on plastic pollution to identify some of those trade barriers, which we have a lot of examples on, of how, you know, for instance, we're actually seeing, in some cases, basically, where plastic is actually being dumped in the ocean. There's actually a use for it, but there's a restriction between trade and partnerings.

In fact, these are not being dumped in developing countries. In fact, they're going to advanced recycling facilities in developed countries, so it's not the other ways that people think it's going.

So I think these are actually ways we could actually use the WTO to actually promote a really trade facilitated mechanism that boasts -- basically helps basically workers in these countries, supports their incomes, at the same time supports more environmentally stable methods.

So I think we can obviously provide more of that information in detail, but there's a few examples. I think we can actually use the WTO not just to set standards, but actually talk about specific projects or specific ideas and work streams, that actually, this could benefit not just, of course, the United States, but of course, workers in many other countries.

MR. CRAMER: Great. Thank you. Thanks.

MR. BAN: One question for Mr. Maybarduk. You note in your written submission that the world presently depends in large part on India and China for production of finished drugs and active pharmaceutical ingredients, particularly for generics. And you note that finding a quote, new, affordable sources should be beneficial, end quote. Besides re-shoring, which you do discuss, do you have any suggestions for other new, affordable sources among our trading partners?

MR. MAYBARDUK: Well, I think, globally, so there's a movement on -- there are two pieces. Right. So there's what we can do for American production and supply, but I take you to be asking about what we can do to encourage global supply and supply from our trading partners. And this is a major subject of international discussion right now.

So part of U.S. policymaking should just be awareness of the different forms in where plans to establish regional production and also support sustainability of that production through procurement policy is taking place. Some trade policies that can be useful from the United States can include support and essentially clearance for local procurement.

If we want countries to stand on their own two feet, make their own diagnostics, regionally produce vaccines where capabilities can be developed, those businesses need also a sustainable source of funding.

And so, governments need to be able to invest locally, and in some cases, give preferences to local or regional industries in order for them to stand up and not be reliant on a Western supplier, competing for limited supply that we're producing and need for people in the United States.

We can go a little further. I mean we are encouraged by the more open intellectual property policies that the U.S. Trade Representative is pursuing. That allows more companies to enter into the production of key essential medicines earlier in their life and is the reason that many millions of people are alive right now when it comes to diseases like HIV and Aids. So continue to encourage countries to be able to pursue their own policies with regard to patents consonant with the WTO TRIPS Agreement.

There's also movement on for technology transfer. And there are many ways to do this. And there's a debate about, you know, forced technology transfer and so on.

But actually, the United States is quite engaged now in policies that are supportive of technical development, technical assistance, and in some cases, technology transfer, such as the mRNA program under auspices of the WHO, where 15 vaccine manufacturers across the global south are coordinating and exchanging information and best practices to more effectively and ideally sustainably be able to produce MRNA vaccines against a range of pandemic threats. That's going to be beneficial for everybody abroad and here in the United States as well in stemming out new threats when they emerge.

The United States is supporting these

initiatives through the Development Finance Corporation, through the National Institutes of Health, through NIAID. U.S. scientists have been involved in establishing those programs and other programs like it. And our agencies at HHS and Commerce and State and others are negotiating related terms under the auspices of the Pandemic Accord and others internationally.

But there are many measures afoot. And we should just be mindful of an environment that encourages new production as much as possible. But again, just emphasize, that, for us, is all in addition to the things that we can be doing at home.

And we believe and agree with much of the premise over the last few days that that should be a priority in supplementing the global supply with new sources of supply in the United States and with a role for the Federal Government in monitoring the supply chain and ensuring that short -- you know, if a shortage is forthcoming, we have a way to intervene and deal with it, And perhaps even a more active role in ensuring the supply of essential medicines here at home. Thank you.

MR. BAN: Thank you. I think I have one final question for Ms. Bliss. I think you focused, in large part, in your oral testimony on service exports. I think you touched a bit on imports and how there's a shift toward re-shoring in certain spaces.

But if we can focus a bit on the import side of services, or service supply chains if you will, do you -- are you aware of any risks or vulnerabilities for services that are imported to the U.S. and consumed here?

MS. BLISS: No. I would say, in general, not. I mean, within the frame of -- certainly aware -- very aware of the national security concerns with respect to China and certain countries. But in general, I don't think that the services that are being imported into the United States, by and large, present security risks.

And with that being said, I'm -- we're also very mindful of the close relationship between the flow of services and data too. And we fully recognize and certainly commented and commend I think the administration's handling of the bulk data transfer proposed regulation.

But I think, by and large, we don't see national security risks or cyber security risks with respect to services imports.

MR. BAN: Thank you very much. I note that we are a few minutes after our scheduled time, but we started five minutes late. So we don't have any further questions from the panel, but I'll just ask our witnesses if you have any additional rebuttal or elaboration at this point.

MS. BLISS: One comment. And I think it dovetails, to a certain extent, with Mr. Maybarduk's comments. And that is that he talked exclusively about the health space, but I think it's a good illustration of how re-nationalization of global supply chains is not necessarily the answer. There needs to be a mixture.

And we certainly support the CHIPS Act and the effort to revitalize the U.S. semiconductor industry. But at the same time, we think it's important that we maintain diversified supply chains because pandemic situations are a perfect example of where, in lockdowns, having a concentrated domestic supply can have adverse consequences.

So just wanted to be on the record that certainly there's academic research -- and we can cite this in our post-hearing statement -- that countries with a higher degree of international trade openness reduce exposure to domestic interruptions through the ability to diversify supply and demand across trading partners.

And again, just referring to my colleague's remarks, I think that's a good example.

MR. BAN: Thank you. Mr. Bernstein?

MR. BERNSTEIN: Thank you. Yeah, the

only thing I would probably want to add is the comment you made about, I think, to our -- to Christine, on the right, about whether there's just a good or kind of services supply chains, and I know you asked her a question on how much this is relating -- is it a goods issue. But I actually think for even the goods area, the manufacture part, there's a fair amount of services. And in fact, this is growing a lot more in the chemical sector.

One of the reasons why we supported the e-commerce moratorium on Customs Duties is -- was because, actually -- remember, the highly advanced products that we're making and delivering actually rely a lot more -- this may be surprising, but things like on AI, on e-commerce, this has actually become a much larger segment of our industry, and I think our industry to grow.

So I think if I would probably say it for the other way around, just to put it on the record, that, actually, services are probably an even more important part of our manufacturing sector as well and growing.

MR. BAN: Thank you. Mr. Maybarduk?

MR. MAYBARDUK: Yeah, perhaps just to further clarify. So we didn't talk much about quality. There's often contentious issues in the pharmaceutical space about the quality of drugs produced in different parts of the world. Both patent and branded generics depend very significantly on imports and active pharmaceutical ingredient of our trading partners, including out of China.

The path toward improving quality and security there is through drug regulation and site inspections and a strong role for FDA in ensuring consumer safety rather than in trying to cut out supply where it is important to affordability. But there are significant quality issues that we should take seriously as part of this calculation.

I think it's just for -- you know, for clarity, it may be worth noting that I think what

I find from reading the record the last couple days is that there's actually agreement between consumer groups and the industry when it comes to the importance of global and diverse supply and concerns about disrupting the networks on which supply chain relies. So hopefully that's encouraging.

The area that we disagree, at least with the pharmaceutical industry, is in accountability and what is given in exchange for subsidies in this space, and the role, of course, of intellectual property, which we have discussed. So just noticing that the supply chain space seems a little under-scrutinized from a consumer perspective, from what I understand of the record so far.

And so, I'd urge the committee, and others, when evaluating new proposals, such as the Medical Supply Chain Resiliency Act, to have a tough look as to whether each of the proposed measures indeed enhance supply chain resiliency or is in there for other unrelated industry interests. And -- but thank you very much for your time.

MR. BAN: Thank you, Mr. Maybarduk, and thank you, all. That concludes our final panel of the hearing. As a reminder to everyone, including those joining via Webex, our regulations.gov docket will remain open through June the 4th to receive post-hearing comments, as provided in our April 3rd Federal Register Notice.

Before we adjourn, I wanted to provide some very brief closing remarks just to wrap up. First and foremost, on behalf of USTR and all of our interagency partners who participated in this hearing, that includes Commerce, EPA, Labor, State, and Treasury, I want to thank all of our witnesses again for taking the time to be here.

Supply chain resilience is a challenging and wide-ranging area of trade policy, activity, and inquiry. And as I noted in my opening remarks, we, as the Federal Government can't go it alone. Thank you for sharing your stories, concerns, and expertise.

Over the coming days and weeks, I expect that we'll all begin to reflect on this hearing and the new insights and questions that it raised. As we begin this process, I first invite you to consider the proposition that supply chain resilience represents a new paradigm in trade and investment policy.

The U.S. and other like-minded trading partners around the world are increasingly interested in understanding where and how goods are produced for a wide range of policy reasons. Within this new paradigm, we then need to confront and rethink important questions. How can trade policy complement our domestic economic policy? How can the United States and its like-minded partners deepen and evolve our trade and investment linkages? How can we imagine new ways of expanding not only the quantity of trade but also the quality of that trade?

To be clear, these aren't fundamentally new questions, but when viewed through the lens of supply chain resilience, they may call for new answers. In response to those questions, our witnesses over the last two days presented a range of answers and policy preferences, sometimes in tension with one another. And that's understandable. How best to promote supply chain resilience isn't an easy question to tackle.

Solutions may vary by sector or even by product and will take time to formulate. But by convening here and participating in this hearing, we've all demonstrated our shared commitment to those basic questions themselves and to better serving all parts of the American economy.

USTR and our interagency partners look forward to continued engagement with all of you. Thank you once again.

(Whereupon, the above-entitled matter went off the record at 5:10 p.m.)

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C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: Promoting Supply Chain Resilience

Before: USTR

Date: 05-03-24

Place: Washington, DC

was duly recorded and accurately transcribed under my direction; further, that said transcript is a true and accurate complete record of the proceedings.

Neal R Gross

Court Reporter