Section 301 Investigation

PUBLIC HEARING,
was held on Tuesday, March 11, 2025, commencing at 10:05 a.m., at Office of the U.S. Trade Representative, U.S. International Trade Commission (USITC), 500 E Street, SW, Washington, District of Columbia 20436, reported by Jeaninn Alexis, Stenographic Reporter and Notary Public in the State of Maryland and District of Columbia.

A-P-P-E-A-R-A-N-C-E-S:

SONJA SCHAEFER - U.S. Department of Labor
SARAH BONNER - U.S. Small Business Administration
YIFAN CHEN - U.S. Department of Treasury
KYWAII LAWRENCE-JACKSON - U.S. Department of Defense
BECXI SANCHEZ - U.S. Department of Transportation
PHILIP BUTLER - Chair of Section 301 Committee
LUKE MYERS - U.S. Department of Commerce
ACE GAZIS - U.S. Department of State
TYRELL BURCH - USITC
PHILIP BUTLER - USTR
TIMOTHY WINELAND - USTR
ERIN BIEL - USTR
REBECCA GUDICELLO - USTR
RACHEL HOWE - USTR

I-N-D-E-X

Initiation of Section 301 Investigation
March 11, 2025

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

MR. BUTLER: Good morning and welcome. The Office of the United States Trade Representative in conjunction with the interagency Section 301 Committee is holding this public hearing in connection with the Section 301 investigation of China's acts, policies, and practices related to targeting of the semiconductor industry for dominance.

The United States Trade Representative initiated this investigation on December 23rd, 2024, pursuant to Section 302(b)(1)(A) of the Trade Act of 1974 as amended. In the Federal Register notice published on December 30th, 2024, announcing the initiation, USTR also invited written comments and announced this hearing.

The December 30 notice invited comment on whether the issues covered by the investigation are actionable under the statute. Actionable matters under Section 301 include acts, policies, and practices of a foreign country that are unreasonable or discriminatory and burden or restrict U.S. commerce. The December 30 notice is available on the USTR website under the

Section 301 Investigation page, and is published in the Federal Register at 89 Fed. Reg. 106725.

The purpose of this hearing is to receive public testimony regarding the issues raised in the December 30 notice. The Section 301 Committee will carefully consider today's testimony and all written comments in response to the Federal Register notice including post-hearing rebuttal comments. Post-hearing comments are due March 18th, 2025 and should be limited to rebutting or supplementing testimony at this hearing.

After the Section 301 Committee has completed its investigation, the Committee will make a recommendation to the U.S. Trade Representative on whether the acts, policies, and practices are actionable under the statute. If it is determined under the statute institute that acts, policies, and practices are actionable, the U.S. Trade Representative will determine whether action is appropriate. And if so, what action to take under Section 304 of the Trade Act, which would involve an additional notice and comment period.

We are pleased to have international trade and economic experts from a range of U.S. government

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agencies with us at the hearing today. So why don't we start, please, by having those individuals introduce themselves starting with the Department of Labor.

U.S. DEPARTMENT OF LABOR: Sonja Schaefer, Department of Labor.

U.S. SMALL BUSINESS ADMINISTRATION: Sarah Bonner, U.S. Small Business Administration.

U.S. DEPARTMENT OF THE TREASURY: Yifan Chen, U.S Department of Treasury.

U.S. DEPARTMENT OF DEFENSE: Kywaii Lawrence-Jackson, Department of Defense.

U.S. DEPARTMENT OF TRANSPORTATION: Becxi Sanchez, Department of Transportation.

U.S. TRADE REPRESENTATVE: Rachel Howe, USTR.

U.S. DEPARTMENT OF COMMERCE: Luke Myers, Department of Commerce.

U.S. DEPARTMENT OF STATE: Ace Gazis, Department of State.

MR. BUTLER: And I am Philip Butler, Chair of the Section 301 Committee for USTR. We are also honored to have the participation of a member of Congress in this hearing. Later this morning at 11:45, we will

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receive testimony from Congressman John Moolenaar, the Chairman of the House Select Committee on the strategic competition between the United States and the Chinese Communist Party.

Before we proceed with Panel 1, I will provide some procedural and administrative instructions: The hearing is scheduled for one day, today March 11th. The December 30 notice indicated that post-hearing comments will be due seven days after the public hearing. Post-hearing comments are due on March 18, 2025.

Today we will have four panels of witnesses with 16 individuals scheduled to testify. The provisional schedule has been posted on USTR's website. We will have a brief break between panels and will take a 50-minute lunch break. Each witness appearing at the hearing is limited to five minutes of oral testimony. The light before you will be green when you start your testimony, yellow means you have one minute left, and red means your time has expired.

After the testimony from each panel of witnesses, the Section 301 Committee will have an opportunity to ask questions. All questions will be

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from agency representatives. There will be no questions accepted from the floor. Committee representatives will generally direct their questions to one or more specific witnesses.

Again, post-hearing comments including written responses to questions from the Section 301 Committee are due March 18, 2025. The rules and procedures for written submissions are set out in December 30 Federal Register notice. Given the number of witnesses and the schedule, we request that witnesses, when responding to questions, be as concise as possible.

We likewise ask witnesses to be understanding if and when the Chair asks that a witness conclude a response. In this regard, witnesses should recall that they have a full opportunity to provide extensive responses in their post-hearing submissions.

No cameras or video or audio recording will be allowed during the hearing. A written transcript of this hearing will be posted on the USTR website as soon as possible after the conclusion of this hearing. At this time, we are ready to proceed with Panel 1.

And I apologize in advance if I get any names

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wrong. Let's start with Panel 1. Can we start with Ms. Cao.

WENJIA CAO,

China Chamber of Commerce for Import and Export of Machinery and Electronic Products, CCCME

MS. CAO: Thank you. Good morning. Thank you for the opportunity to attend today's hearing. I am Cao Wenjia from China Chamber of Commerce for Import and Export of Machinery and Electronic Products, CCCME.

The CCCME has been committed to promoting trade, investments, and bilateral exchanges. In May last year, under the Joint Working Group Mechanism of China provinces and the U.S. States, we led a group of nearly 100 business representatives to visit the U.S and carried out a number of trade activities. The CCCME and our member companies are always strong supporters and active participants in global trade.

As regard to the semiconductor industry, it is well acknowledged that the industry has long operated as a global supply chain, benefiting from globalization, international division of labor, and worldwide cooperation, playing an essential role in global

technological innovation.

China, as the world's largest consumer of semiconductors, accounts for over half of the global chip sales which relies heavily on imports, in 2020, imports consisted of 83 percent of the total chip sales within the country. If we look at the revenue history of major semiconductor companies, you will find that the sales of Chinese market accounts for a considerable part of the U.S. semiconductor companies' revenue, such as Texas Instruments and Intel.

As stated in CCCME's comment, the semiconductor industry is highly dependent on global collaboration. However, in recent years Chinese companies are faced with more restrictive controls that prevent the sales of semiconductor products to them from countries including the U.S.

Such unpredictable policies create great uncertainty and have greatly pushed Chinese companies to re-examine and adjust their decision-making strategy in fields such as procurement and production, so as to avoid the risk of using chips from the U.S. companies.

Hence, CCCME would like to highlight that the

evidence alleged in the formal notice of this investigation is unsubstantiated and biased, and the investigating scope is overly broad, and we also noted that the launch of this investigation has caused concerns in the U.S. domestic industry.

In addition, the CCCME is perplexed about the previous administration's initiation of the investigation as we found the evidence listed is contradictory. For instance, statistically the U.S. semiconductor industry maintains its leadership in the global market and continues its trend to thrive.

In 2023, the U.S. industry accounts for 50.2 percent of global sales revenue, up from 46 percent in 2018, and in R&D, design, and manufacturing process technology, the U.S. semiconductor firms also maintains a leading competitive position.

CCCME learned that the U.S. administration has heavily subsidized its domestic semiconductor industry and projects. For instance, quote, the CHIPS and Science Act provides $52.7 billion for American semiconductor research, development, manufacturing, and workforce development, and since the CHIPS introduction,

more than 90 projects across 28 states are announced in fabrication and packaging, equipment and materials manufacturing, and R&D facilities.

From these data, it can be found that there are no signs showing the U.S. semiconductor companies are exposed to burdens or restrictions or suffer from injuries. Also, CCCME would like to recall research and studies on Section 301 measures that the negative impact of increased tariffs primarily shown as higher prices and costs for U.S companies and households.

And especially with U.S. inflation accelerated in January, a new round of tariffs or restrictions would only worsen the situation. We sincerely hope that, instead of owing every potential problem to its Chinese peers, the USTR can comprehensively investigate the real challenges faced by the U.S. semiconductor companies.

In summary, the CCCME really appreciates the opportunity to testify. We hope that the USTR can consider voices from different interest parties and to approach this investigation prudently. CCCME also sincerely recommends terminating this investigation and avoiding undertaking any unreasonable measures that

would bring harm to the U.S. and global semiconductor industry. We advocate mutual development between the U.S. and Chinese companies, and are always willing to contribute to close connection and cooperation between companies from both countries and more sustained growth of the global economy. Thank you.

MR. BUTLER: Thank you.

Mr. Xu, the floor is yours.

XIMING XU,

China Association of Automobile Manufacturers

MR. XU: Good morning, 301 Committee. My name is Ximing Xu, and I'm here on behalf of CAAM China Association of Automobile Manufactures. Founded in 1990, CAAM is the most representative national nonprofit trade organization in the automobile industry of China. CAAM is a self-disciplined, non-profit social organization and by the end of 2024, CAAM has maintained over 3,700 members.

China's auto market is one of the largest in the world, with total auto sales reaching 26.282 million units in 2024. It is an open, transparent, fair, and free competition market. The world's major automobile

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manufacturers have set up production and sales networks in China. The major brands in the Chinese market include Mercedes-Benz, BMW, Volkswagen, Toyota, Tesla, General Motors, Ford, Jeep, Peugeot, Citreon, Volvo, Isuzu, Mazda, and more.

They sell both locally produced models and imported ones in China. All the major car lines have a share in the Chinese market. In 2024, 14.6 percent of passenger cars sole are German brands, 11.2 percent Japanese, and 6.4 percent are American.

In addition, the world's major auto parts companies are also conducting sales and production layout in China, including the U.S.-funded companies such as Lear, Aptiv, Venture, Visteon, Bog Warner, Cummins, Magna, and many other internationally renowned companies.

An automotive chip is one of the product forms of the semiconductor industry. Each vehicle currently uses hundreds to thousands of chips according to its intelligence level. In China, auto and parts-related enterprises treat chips from Chinese and foreign companies imported chips and local chips equally when

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purchasing and using chips.

The CAAM has also never received complaints from its members, especially joint ventures or foreign-funded enterprises that they are subject to unreasonable, improper, or discriminatory restrictions when purchasing chips for vehicles nor has it received or seen any complaints from chip companies about unreasonable, improper, or discriminatory restrictions on the purchase of in-process chips by auto companies.

Chinese enterprises always adhere to an open attitude towards foreign chips, and it has become normal for Chinese enterprises to purchase automotive chips globally. In recent years with the rapid development of China's automobile industry, the demand for automotive chips has increased sharply. The supply of domestic automotive chips in China is far from meeting the market's demand, so Chinese enterprises purchased a large number of foreign automotive chips.

Statistics show that more than 90 percent of the chips for China's automobile industry were imported from abroad in 2023. At present, although some automotive chips are designed by domestic companies in

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China mainland, most of the automotive gauge chips are manufactured by wafer factories in Taiwan Province, South Korea, Singapore, and China's dependence on overseas foundry is very high.

The global automotive supply chain is interconnected and highly Integrated. The global market share of automotive chips eventually outputted from China is very low. Although domestic chips are exported overseas from China, after those chips are formed into products such as controllers, most of those chips would be sold back into China as parts of assemblies.

The electrification, intelligence, and networking of automotive products as well as the global supply shortage, have driven the development of local research and development and manufacturing or automotive chips in China.

The Global chip supply shortage during the epidemic has driven the growth of China's local chip industry. At the end of 2020, due to the impact of the epidemic on the world's major chip manufacturers, there was a global shortage of automotive chips, resulting in continued supply chain problems. Therefore, China as a

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major automotive production country, was seriously affected by that. This background has pushed Chinese chip companies to strengthen technological innovation and capacity expansion to meet the demand of the domestic market.

A global chip shortage forces a reshaping of the chip supply chain. This shift has not only promoted the development of China's automotive chip suppliers, but it also promoted the synergy and cooperation between upstream of the entire industrial chain.

The huge demand of China's automotive market also provides a broad space for development and market opportunities for chip companies. With the rapid development of China's new energy vehicles and intelligent connected vehicles, the demand for automotive chips has further increased. The growth of market demand is also an important factor to promote the development of the automotive chip industry.

With the continuous improvements of consumers' requirements for vehicle safety, comfort, energy savings, and intelligence level, the demand for automotive chips would also strongly increase annually.

In summary, CAAM believes that China's automotive chip industry does not employ anti-competitive and non-market means to achieve its objectives and that China's laws, policies, and practices are not unreasonable or discriminatory in accordance with Section 301 (b) of the Trade Act.

The development of China's automotive chip industry is an inevitable result of market-driven changes in the global market structure. If the Section 301 investigation initiated by the United States eventually adopts measures such as increasing tariffs and supply chain restrictions, it will certainly damage the global automobile industry, disrupt the semiconductor industry and market pattern, lead to the rise of global chip costs, increase the costs of the automotive supply chain, and harm the interests of global automotive consumers including China and the United States.

We hope that the USTR can have a comprehensive and objective understanding of the global automotive chip industry and make better judgment. China's automotive industry and automotive chip industry have

always upheld an open and cooperative attitude, hoping to engage in dialogue and cooperation with the United States in technological innovation, industrial collaboration, supply chain and services, and avoid unilateral trade actions. Thank you.

MR. BUTLER: Thank you.

Mr.McKechnie.

MARK McKECHNIE,
ACM Research

MR. McKECHNIE: Hello, I am mark McKechnie, CFO of ACM Research Incorporated. We're a company that supplies world-class equipment manufacturer and major producer of semiconductor chips. First, I want to thank the administration for its dedication to the national security of the country and the wellbeing of American companies. I'm grateful for the opportunity to discuss the impact that potential tariffs will have on our company and also the American semiconductor industry.

ACM research is a company that embodies the American dream. We were founded in 1998 in Fremont, California as a Silicon Valley startup. ACM Research has since grown into a publicly traded company on the

NASDAQ, revenue almost $800 million and the current market capitalization is more than 1.6 million.

Our founder Dr. David Wang immigrated to the U.S. in the early '90s and became a U.S. citizen and pursued his vision of building a world-class global semiconductor equipment company on American soil. He holds numerous U.S. patents in semiconductor fabrication, he deliberately established ACM in the U.S. to leverage the ingenuity and economic opportunity of this great country.

ACM doesn't make semiconductor chips, rather we develop and produce tools and equipment that are essential to the fabrication of the semiconductor chips. Our technologies report critical processes including single wafer, batch wet cleaning, electro-plating, and a few more product lines under development. The very name ACM stands for advance cleaning machines reflects our leading role in the technologies field in which no comparable U.S. firm exists.

Let me be clear, ACM is the only American company with top-to-bottom cleaning tools for semiconductors. We note that our main competition in

cleaning tools is from Japan. Our global headquarters are in Fremont, California in the Silicon Valley. We manage our global operations including our finance team, R&D, customer sales and services, and other activities.

We also operate several facilities in Hillsboro, Oregon including a 40,000 square foot building we bought just last year to serve as a launching pad to bring production and advance R&D back to the U.S. Our customers are major semiconductor manufacturers based in the U.S., Europe, and Asia.

Like many other U.S. tech firms, the majority of our firm production is through our manufacturing subsidiaries. For us, in China and Korea. We have found it important to locate our production and engineering team as close to our customers, which allows us to adapt our tools to meet our customers' requirements.

We have planned to bring our tool technology developed in Asia back to the U.S. where we plan to scale it in mass production to support the historic process back to America. ACM fully supports the administration's commitment to strengthen the

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semiconductor industry. To align with this goal, we are actively expanding our U.S. manufacturing footprint and ensuring our manufacturing operations to the United States.

For example, we have made substantial investments to expand our production at our Oregon facilities where all of our employees are in the local communities. ACM is committed to bringing more manufacturing and jobs and products to the U.S.

This is where we need your help. The process of reassuring, establishing, and scaling the production for our specialized tools is, of course, complex, and our customers demand copy-exact tools for the multi-billion dollar production lines. For this, we will require a transition period measured in years, not months.

The end game is clear. Thousands of American jobs and domestic investment, but ACM and I suspect the entire industry will need a bridge to transition from Point A to Point B. So our answer is simple: To support the goal of revitalizing American semiconductor production, we respectfully request that ACM and its

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equipment use for domestic semiconductor manufacturing be exempt from any tariffs or trade restrictions that may result from this investigation.

This would include subsystems, modules components currently made by our factories in China until we transition to production here in the U.S.

U.S. Trade Representative has previously recognized the necessities of such exceptions following the prior Section 301 investigation concerning China's acts and policies on technology transfer, USTR did recommend duty exclusions for machinery used for domestic manufacturing.

Similar exclusion for machinery and equipment use for domestic semiconductor manufacturing is warranted here to further the administration's goals to prevent disruptions in operations and investments, this exemption from additional duties should exist in the first place rather than later providing for exclusion.

Thank you again for this opportunity to present ACM's perspective. We look forward to working with the administration to strengthen the American semiconductor industry while ensuring that companies

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like ACM can continue to invest, innovate, and create jobs in the U.S. Thank you.

MR. BUTLER: Thank you.

Mr. McReynolds.

JOE McREYNOLDS,

Pamir Consulting

MR. McREYNOLDS: Thank you for the opportunity to testify today. We at Pamir come to this issue as experts on China's defense industrial S&T development and China's trade practices aimed at dominating the global technology economy. And we believe at Pamir that USTR is correct to be investigating this silicon carbide wafer market for potential unfair competition practices by Chinese manufactures.

Although silicon carbide chips are not at the cutting edge of technological possibility with a sense that chips targeted by sanctions usually are, they do, in fact, form a crucial part of the global technological supply chain. And in the Q and A, we can go into detail in any direction that you all like, but to start, I would like to offer three main points: One is that silicon carbide wafers are essential to U.S. national

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security. For the automotive industry, renewable energy sector, areas where China hopes to considerably expand their global market share in the coming years and do have a degree of dual military civilian use.

And the established market leaders in these sectors, both Western multi-nationals and Japanese firms now face growing competitive pressure from China, and that is coming from artificially boosted national champions rather than from organically competitive Chinese production.

According to industry analysts, China is now within two years of constituting the majority in global silicon carbide wafer production, which is a trend driven heavily by the PRC's coordinated government supportive industrial policy in this sector. And under these circumstances, I think taking Section 301 actions against Chinese firms that are receiving these heavy subsidies is simply a prudent option to restore a more level playing field.

My second point is that imports comprising of silicon carbide wafers from China pose a real threat to U.S. national security. Go back to 2015 when China

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released its Made in 2025 policies. There they identified silicon carbide as a quote, unquote, next generation material that they believe will be increasingly prominent after 2020. And, indeed, their share of the global market is going to be north of 50 percent by 2026, we're looking at.

Driven by PRC firms such as TanKeBlue, SICC, they are winning market share through these subsidy-driven low prices. And TanKeBlue in particular, they are the largest of China's firms. They have been designated as both a national high tech enterprise and a quote, unquote, little giant enterprise as a specific PRC designation of national champion status for a small, medium size technology firms.

So they participated in numerous defense industrial 863 projects which are aimed at indigenous PRC development of dual use geo-strategically relevant technologies, and then TanKeBlue, through their Xinjiang subsidiary is also conducting a major research project with the XPCC Xinjiang Production & Construction Corps.

And XPCC is a state-run para-military corporate conglomerate that's actually been sanctioned

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by U.S. for its role in horrific human rights violation against the Uyghur population.

So you have a situation where TanKeBlue, the market leader for the PRC and is poised to become a global leader not only is a prime target for Section 301 action but it's -- their collaboration with the XPCC raises the possibility that their technology supports the Uyghur genocide, and for them, the sanctions may also be appropriate.

So because of the comprehensive threat of the Chinese monopoly in the sector as well as the defense industrial ties of key national champions, we believe that there is a threat to U.S. national security here. And the current 10 percent tariffs on imports from China is just insufficient to protect U.S. capacity.

There's been a lot of analyses on these and we can talk about them in the Q and A, but fundamentally silicon carbide chips are only a small percentage of the input into a finished product whether that's military equipment, power grid components, you name it. And so tariffs will have to be applied to the final products to be an effective deterrent. The total cost of all the

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silicon carbide in an electric vehicle is a tiny fraction of the total cost of the car.

So finally I will simply say that this rapid artificial subsidy driven expansion is happening because China understands this is national security relevant and we should take action. Thank you.

MR. BUTLER: Thank you, Mr. McReynolds.

Okay. I thank the panelists for their testimony. We're going to turn to questions now. First questions are going to be for Ms. Cao. And the first question is from USTR.

U.S. TRADE REPRESENTATVE: Hi. Good morning, Ms. Cao. Thank you for your testimony. My question is about the CCCME itself. I want to know whether it's affiliated with any government? For example, does your organization, does it have a Chinese Communist Party cell? And are any of your members Chinese state-owned, invested, or controlled?

MS. CAO: Thank you for your question. CCCME was established in 1988. CCCME is a national nonprofit and we are not affiliated with any government agencies. And actually, our companies are voluntarily joined so we

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operate independently, thank you.

U.S. DEPARTMENT OF THE TREASURY: Good morning. Can you explain your role that CCCME plays coordinating industry interests in China and interacting with the Chinese government and the Chinese Communist Party? What is your role, if any, in shaping and implementing Chinese government policy in the semiconductor sector?

MS. CAO: Is that a question for CCCME?

U.S. TRADE REPRESENTATVE: It's for you, yes.

MS. CAO: In terms of the CCCME, as mentioned earlier, and in our comments, we are an organization. And regarding your question about Chinese or Chinese government policies, as mentioned in our comment that those plans or industrial policies was submitted that the policies be documented which picture the future development.

Furthermore, it's not uncommon that developed countries including the U.S. or European countries to have industrial policies, so not only in China. Thank you.

U.S. DEPARTMENT OF COMMERCE: One more

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question, Ms. Cao. CCCME's public comments state that industrial cooperation and trade in semiconductor industries between China and the United States is a market-oriented choice under the global division of labor. However, it is reported that Chinese silicon carbide suppliers are offering a price as low as 500 USD per wafer when historically the same wafer was about 1500 USD. Chinese silicon carbide suppliers are reportedly providing this price while operating at a loss.

What are the factors behind this major cost differential?

MS. CAO: I think we will articulate in more detail in our post-hearing comments. And can I add one more. I think we provide services for Chinese companies but we also provide services to companies from foreign countries that opened in China. And if you are looking for more information, we are more than willing to provide that information in our post-hearing comments, thank you.

MR. BUTLER: Next we are going to turn to Mr. Xu.

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U.S. TRADE REPRESENTATVE: Good morning, Mr. Xu. Could you explain what role, if any, CAAM plays coordinating industry interests in China and interacting with the Chinese government and Chinese Communist Party? What is your role, if any, in shaping and implementing Chinese government policy in the semiconductor sector?

MR. XU: Good morning. The status of commerce is basically just organization. We are funded and a national, nonprofit and trade organization so only focused on automotive industry in China. And we host conferences and make social events for automakers in China, also the auto parts suppliers and also some software service providers and we are independent operating from the states and the government. And, of course, we obey the laws. Thank you.

U.S. DEPARTMENT OF TRANSPORTATION: How, if at all, has your association membership collaborated with China Automotive Chip industry Innovation Strategic Alliance CACIISA established by China's Ministry of Industry and Information Technologies? And what feedback, if any, did your association contribute to the white list of Chinese Automotive Chips that CACIISA

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released in April 2024?

MR. XU: For this questions, honestly I'm suffering from a bit of jet lag right now. And about that part, I'm personally -- my work doesn't associate with them that much. And mostly, we just focus on the automakers and the industry. And if you want me to provide further information, I'm more willing to submit more as much as I can after. Thank you.

MR. BUTLER: Next set of questions are for Mr.McKechnie. And we will start with State.

U.S. DEPARTMENT OF STATE: Good morning. Has ACM Research experienced any pressure to form joint ventures in China? And have China's acts, policies, and practices impacted ACM's sales or operations in China or third markets?

MR. McKECHNIE: Thank you for the questions. Which policies did you ask?

U.S. DEPARTMENT OF STATE: China's acts, policies, and practices impacted ACM's sales or operations in China or third markets?

MR. McKECHNIE: To my knowledge, and we can give more comments on that post-testimony writeup, but,

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you know, we are controlled by market forces generally. We make our investments on the production forecasts and we don't feel a tremendous amount of influence.

U.S. TRADE REPRESENTATVE: How, if at all, have China's acts, policies, and practices related to silicon carbide wafers affected the competitiveness of your business?

MR. McKECHNIE: Thanks for asking that. We're a broad-based supplier of tools across the range of semiconductors from front end, back end. Silicon carbide probably a pretty small part of our overall business, so I have not developed a significant impact on that.

MR. BUTLER: Next. we'll turn to questions for Mr.Reynolds, please.

U.S. DEPARTMENT OF DEFENSE: Good morning, Mr. McReynolds. Can you elaborate on the numerous defense industrial 863 projects aimed at indigenous PRC development of dual-use and geo-strategically relevant technologies that you referenced in your summary of testimony? To your understanding, what are those projects pursuing?

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MR. McREYNOLDS: So 863 projects are across the entire range of Chinese science and technology development, and they are part of a broader process that the Chinese government has termed military civil fusion or MCF that they are looking not just at civil military integration, not just at end step procurement for defense purposes but bringing civilian companies into every step of development.

And so to see like merely 400 separate, designated key projects for scaling China's SIC production and the projects and the TanKeBlue specifically participating in, I will believe they are focused on military applications of both automotive technology and then also energy storage technology, which are there are numerous.

That's something certainly if you would like a more detailed breakdown of the program, I'm happy to provide that in post-testimony.

U.S. DEPARTMENT OF LABOR: Can you please elaborate on TanKeBlue's alleged coordination with the Xinjiang Production and Construction Corps and sources for this information, if possible?

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MR. McREYNOLDS: Certainly. I will -- the source I have right here is actually for specifically for their research project with the XPCC was from an industrial catalog provided by TankeBlue publicly. So that's actually something we encounter a lot with sourcing for things that almost by definition can easily trigger 301 action, things like that.

It's that China tends to treat the Chinese language as their first layer of encryption because a source is in Chinese language, there's not really often even after effort make of this kind of collaboration of participation and certainly with regard to the Xinjiang pressures of the Chinese government trying to pretend, oh, nothing's going wrong. We are not committing depression there so you are required to participate in and you can't shy away from it.

And then obviously the act and actions abroad trying to hold China accountable for those very real human rights abuses, so TanKeBlue has not shied away from acknowledging in China's language that they are conducting this research.

U.S. DEPARTMENT OF TRANSPORTATION: Good morning. Are you aware of examples of Chinese policies leading to forced technology transfer in the semiconductor sector?

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MR. McREYNOLDS: I'm not aware. I couldn't speak to the semiconductor specifically on forced technology transfer, but that is very frequently across industry policy, a policy of the PRC to force technology transfer into industry.

I will say in the semiconductor and silicon carbide industry specifically, I can't speak to whether it's forced or not but there is a huge push strategically to try and get technology transfer from Western firms into these Chinese designated national champion firms for the transition from 6-inch to 8-inch wafers because the Chinese government has identified this as a leapfrog moment where they can really cement themselves as the leaders of the next generation the silicon carbides of the mobile supply chain are significantly more efficient for production rated.

I would say the national security concern from Chinese domination would be identical whether these companies are doing it out of narrow, short-term interest or whether they are doing it as compelled by the Chinese government.

I am concerned with the U.S. national interest in whether trying to dominate the next generation of this technology more than I'm concerned with the exact degree of coercion of short-term interest that these companies are causing these companies to transfer that next generation of technology.

MR. BUTLER: Thank you. In your post-hearing comments, any additional information you can provide in response to that first question on the 863 would be helpful.

Are there any other questions for the panelist? Okay. Thank you very much. I appreciate everyone providing testimony.

I believe it is about eight minutes to 11:00 now. So why don't we plan to come back at ten minutes after 11:00 for the second half. Thank you.

(Short recess taken.)

MR. BUTLER: We ask and remind everyone to speak slowly and loudly enough so we can understand you. We will start off with Mr. Landrith, please.

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GEORGE LANDRITH,
Frontiers of Freedom

MR. LANDRITH: Good morning. I am George Landrith. I'm the president of Frontiers of Freedom founded by former U.S. Senator Malcolm Wallup. And we are supportive of this investigation and we encourage the U.S. Trade Representative to implement trade restrictions to prevent the People's Republic of China from dominating the world and using chip manufacturing as one of its tools.

The People's Republic of China is merely another competitor in a global marketplace. China is not sending fair, economic competition. They are using economic tools as weapons to expand its influence and ultimately pave the way for military domination. The Chinese Communist Party employes state-controlled enterprises, forced technology transfers, and supply chain manipulation, economic coercion, all of it is part of its strategy.

Not just to get an edge in trade but to secure the ability to dictate terms to the rest of the world. And this is not capitalism; this is economic warfare.

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The end goal of the Chinese Communist Party is pretty clear: By achieving economic supremacy, they intend to extend the totalitarian authoritarian control it exercises over its own people throughout the world.

I also think that we have to be careful that we don't allow and undermine American innovation and that they, for example, get rid of things like democratic governments, national sovereignty, even the basic elements of human rights because that is the goal. And we have seen that around the globe in many different arenas.

So investigation is warranted and that trade restrictions are necessary. And, of course, there are specific reasons beyond the generalized one I just gave. Semiconductors are used in a variety of varying ways and almost everything you can imagine is electronic. Everything from our phones, computers but even the military things.

And one of the things we often do is focus more on the advanced chips for U.S. policy. And things like legacy chips are often not given much attention because they are seen as not that important, but I think

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that's the mistake. It's a mistake of significance because these are used to power, as I said, everything you can imagine: automobiles, medical devices, even military systems, among other things. Despite the name, legacy chips are not stale, old technology. they are constantly updated, and it's important to recognize that.

Also, it's important to recognize China has grown its share in the legacy chip market creating a great dependence on Chinese-made semiconductors. Just a few short years ago, they produced 17 percent of these chips and now they are over 40 percent, and it is projected that they will be over 60 percent by the end of this decade.

And they are also tremendously expanding their capacity right now because they see this as a window of opportunity. And they are stiff, of course, to legacy chips and it is our own fault because our policy encouraged that we had -- we exempted other processes of technology from various rules and they jumped all over that.

And in March, a year ago, they produced in one

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month 32 billion units. So I think we have to wake up and realize we better take this seriously because as we discussed, silicon carbide substrates offer a more versatile, durable semiconductor based on the state of traditional silicon chip due to its improved efficiency, thermal conductivity, high power, load bearing, and its resilience in harsh conditions. And so as a result, they are critical in things like power grids, defense systems, electrical vehicle manufacturing, and a great deal more.

And silicon carbide strips are used also in healthcare equipment, renewable energy systems, heavy machinery, and in, of course, challenging environments, and as a result of that, they are viewed as very useful in future defense sector issues. I recognize the importance of silicon carbide wafer semiconductors. China has quickly begun to reel in on the production capacity.

They have expanded their share of global -- in the market by leveraging government subsidies, depressing wages, creating artificial and cheap labor, and favoring the industry production to overcapacity and

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flooded the market and repressed prices across the globe to drive out competition.

And it looks like my time is up.

MR. BUTLER: If you want to wrap it up, that's fine.

MR. LANDRITH: I will wrap it up by saying that that price collapse has caused real problems and we need to wake up and recognize that. And I think the other thing we have to make sure we do is to recognize this is not simply an economic issue; it's a national security issue. And as a result, I hope that the U.S. Trade Representative will complete this investigation and move immediately to implement restrictions to protect the free-market competition of the United States and make sure that we have the national security elements that we need because chips will be among those. Thank you.

MR. BUTLER: Mr. Ferry.

JEFF FERRY,

Coalition for a Prosperous America

MR. FERRY: Thank you. Thank you. Can you hear me?

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MR. BUTLER: Yes.

MR. FERRY: Thank you for the opportunity to testify here today. American silicon carbide semiconductor industry --

MR. BUTLER: Can you pull your mic closer to your mouth, please.

MR. FERRY: American silicon carbide semiconductor industry is under threat from Chinese overproduction. In a few years, the U.S. might have no silicon carbide industry. We've all seen this movie before. Made in China 2025 was published 10 years ago. The Chinese government told us what they were going to do and now they are doing it.

They intended to establish self-sufficiency in what they deem key strategic industries of the future including each industry's entire supply chain. Since China's today is the largest manufacturer nation on earth with a trillion-dollar trade surplus, their ideas of self-sufficiency includes wiping out most, if not all, of the foreign competition.

Since then, they have been busy doing just that and they have a pretty high success rate. Today

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China brings us 25 million automobiles a year. Two and a half times the Number Two producer in the U.S.A. For China, the electric vehicle sector is strategic. China already dominates global EV production and production of the lithium ion batteries that power them, but that is not enough. They want to dominate production of every key component of EV.

Silicon carbide chips are one of those components. Semiconductors of a silicon carbide can carry electric current at much higher voltages. This makes them extremely useful for EVs. Today, most of which run at 400 volts, but are transitioning to run 800 volts and perhaps even higher in the future.

Higher voltages will be seen in many areas of the economy as electrification grows. And all of this favors wider use of silicon carbide chips. The first use of silicon carbide chips in an EV was in the Tesla Model 3 in 2017. Last year, the silicon carbide industry was a 2.5 billion-dollar industry with an annual growth rate of about 18 percent.

Last year, the industry was dominated by silicon carbide wafer makers in the U.S. and Taiwan and

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chip makers in the U.S., Europe, and Japan. But last year, the Chinese government woke up to silicon carbide. Chinese investment in the industry shot up from under a billion dollars to 2.9 billion in the last year. Several dozen Chinese companies have been incentivized to enter the industry making either the wafers or the finished chips.

As we know from past experience, most of those new companies will fail but some will succeed and grow into billion-dollar companies, and ultimately China may succeed in dominating the global industry unless we take action now.

Capacity of silicon carbide wafers is estimated to have shot up from about half a million -- billion units a couple of years ago to 3.9 billion last year and will be more this year. The surge in capacity is driving prices down. One recent estimate says that the price of an 8-inch silicon carbide wafer fell by 60 percent last year. The sudden collapse in pricing is already hitting American chip makers.

Wolfspeed is the U.S. leader in silicon carbide chips. Wolfspeed was an early pioneer in

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silicon carbide and has historically been an old systems growth company. Last year though, the reality of falling prices hit home. The company announced a layoff of 10 percent of its staff, canceled its facility in North Carolina and halted a planned expansion in Germany.

In November, it swapped out its CEO and replacing him with Tom Werner, a Silicon Valley veteran in the solar power industry, another industry that is battling with subsidized Chinese domination.

Qorvo is a North Carolina chip maker and a major supplier to Apple. In 2021, it acquired a New Jersey manufacturer of silicon carbide chips for $260 million as part of a plan to build a big silicon carbide business. Two months ago, it announced it was exiting the silicon carbide business and sold that New Jersey business to another chip maker for $115 million. In just over three years, the value of that business fell by more than 50 percent.

Wolfspeed, Qorvo, and others have great technology but they cannot survive against China's deadly formula combining massive Chinese Government

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subsidies, widespread IP theft, and favoring local companies within the Chinese market. The professional investment community sees the writing on the wall.

That's why Wolfspeed's stock is down 82 percent from the past year now trading for about $5.75. Too often in the last 20 years, Washington has been relaxed to wake up to trends that industrialists and investors are fighting with daily and we have lost entire industries before the government got its act together to do something.

The solution is to act now. We must put high tariffs on all imports of silicon carbide chips from China but that is not sufficient. We should put tariffs on downstream products that contain silicon carbide chips especially EV motors.

I would like to close, if I may, with a broader picture. When the CHIPS Act passed in 2022, there was a lot of talk in Washington about advanced logic chips. Those are great products but every kind of chip is essential to build most products, civilian and military.

You can't drive your car without the LEDs in

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the dash or the headlights. You can't use the 5G phone network without the chips and the wireless transmitter. China has already dominated and controlled the export of gallium or germanium, two essential materials for semiconductors.

It may not sound impressive but if I told you the turn signal in your car is controlled by a chip that costs a quarter, but if there are only ten places in the world that can make that chip and if they all end up in China, then China can stop our entire auto industry with one decision by the Communist Party Central Committee.

I have friends and former colleagues in Silicon Valley and many of these businesses that tell me about the difficulty of doing business when China holds all the cards. It's time to be proactive instead of reactive.

The U.S. needs to take a holistic view of supporting, manufacturing, and defending its entire technology food chain from the minerals to the semiconductors to the finished smart phone and the finished fighter jet. Thank you.

MR. BUTLER: Thank you.

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Mr. Swarztrauber.

EVAN SWARZTRAUBER,

Foundation for American Innovation

MR. SWARZTRAUBER: Good morning, Agency Representatives. Thank you for the opportunity to testify today. My name is Evan Swarztrauber. I'm senior fellow at the Foundation for American Innovation. The technology policy is maintained and based here in Washington. Our organization believes that technology should serve humanity, individual freedom, U.S. national security.

To that end, I testify in support of USTR's Section 301 investigation into China and the Chinese government's predatory subsidies and other market distortions in the semiconductor industry. USTR should take decisive action to investigate and address China's aggressive efforts to dominate the global silicon carbide wafer or SIC market.

These wafers are key inputs in a wide range of critical areas including EVs, power grids radar systems, and missile defense. The U.S. must not lose its capacity to produce SIC domestically. It should be

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obvious: China does not subsidize industries out of generosity. They do so with a clear deliberate strategy to undercut foreign competitors, monopolize critical supply chains, and gain leverage to support the economic and security goals for the Chinese Communist Party.

We've seen this playbook before, as you've heard, from solar panels, LED screens, lithium batteries. Now China is deploying the same tactics in the SIC wafer sector. Their massive government subsidies, below-cost pricing, market manipulation, Chinese firms are working to drive American and ally producers out of business leaving the U.S. and its partners dependent upon Chinese supplies.

In my view, this behavior is unreasonable, discriminatory, and burdens U.S. commerce and should merit an actionable determination by the USTR. For too long, the U.S. government had in the past been largely content to let foreign adversaries flood our markets with goods. U.S. trade policies had prioritized short-term savings and consumerism over long-term economic national security.

As a result, Americans watched entire

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industries collapse. That outdated approach ended when President Trump was first elected in 2016 and there is now substantial bipartisan support for protecting high tech American manufacturing.

The CHIPS Act represents a major effort to atone for these, which is especially important given China's increasing aggression toward Taiwan and elsewhere in the Pacific. Yet unsurprisingly, China has taken steps to undermine the progress specifically by flooding the market with heavily subsidized SIC wafers.

These wafers enable high performance electronics, use in electric vehicles, power grids, telecommunications, advanced military systems. Without a secure domestic supply, United States risks following behind these strategic industries leaving us vulnerable to supply disruptions, especially in the event of war.

USTR should conduct a thorough and robust investigation into China's actions in the SIC market and take any and all necessary measures to counteract these distortions. While a blanket 20 percent tariff on China is welcomed, it is insufficient to correct China's excess subsidies and distortions on particular products

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like SIC. USTR should consider a significantly higher tariff for these PRC produced wafers as well as final products that used PRC produced SIC.

Second, USTR should investigate how Chinese state-owned and state-affiliated firms use third countries as a loophole to evade trade restrictions to hide their ownership interest.

While more facts are yet to come, the advancement of the Chinese AI startup DeepSeek is a potential example of how China uses shell games in Singapore and other nations to avoid sanctions, exploit U.S. technology, and steal intellectual property.

Third, the U.S. government should use its purchasing power to prioritize domestically produced SIC wafers and semiconductors especially for military purposes. There is no reason that American taxpayers should be subsidizing the rope to hang us when they can instead help us. When it comes to China's trade practices, we may have learned our lesson.

We must act decisively to protect our capacity to build SIC domestically both for current use cases and those we cannot yet imagine. Thank you all for your

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leadership in public service on this and other valuable issues, and I welcome any questions.

MR. BUTLER: Thank you.

Timothy Lee.

TIMOTHY LEE,

Center for Individual Freedom

MR. LEE: Good morning. My name is Timothy Lee from Center for Individual Freedom. We are in support of free-market competition and prevent China from gaining advantage in this important industry. By now, it's clear that the People's Republic of China or PRC is to become the world's leader in emerging technologies in the semiconductor and semiconductor component in manufacturing constitutes a central pillar of that goal.

Chinese government understands that by controlling each segment of chip production, it can create a dependence on Chinese manufacturers and pursue dominance to improve that strategy in developing over capacity, saturating the markets with underpriced products, and pushing out competitors.

And CCP exploits unfair advantages including

government subsidies, cheap labor and wage suppression, and state technology and intellectual property theft to achieve that dominance. In terms of state directed technologies and subsidies, CCP has invested more than $150 billion in Chinese indigenous semiconductor manufacturing since 2015, more than any other country.

Last year, the state investment fund or, quote, big fund, unquote, completed a third round of fundraising which produced $48 billion of capital to increase China's chip making capabilities. That continued investment by the Chinese government into the country's semiconductor industry creates an unfair advantage for its state sponsored manufacturers and suggests the United States cannot maintain through domestic investment alone.

While well intentioned, the CHIPS Act, the U.S. initiative to resure semiconductor manufacturing and semiconductor supply chains has been undermined by mismanagement and social activism requirements. Accordingly, the strategy that incorporates trade policies such as export restrictions on U.S.-made products and tariffs on Chinese-made products offers

important measures to help stop the PRC for the semiconductor market.

As one specific measure to advance that broader strategy, CFIF commends the USTR for including silicon carbide production in this 301 investigation and urges action to protect that important industry. SIC substrates efficiency, capacity for handling high power loads, and performance in severe conditions make SIC wafers preferred base for chips.

SIC wafers and chips are an essential component of many military systems such as the missile defense system, Terminal High Altitude Area Defense or THAAD systems, and the Patriot Missile Defense System.

SIC wafer chips are also used in numerous domestic applications including EVs and hybrid vehicle batteries, communications, and renewable energy resources. Chinese government understands the important applications of SIC wafer chips which is growth. The global SIC market is projected to grow more than 600 percent between 2021 and 2027 according to an analysis just a year ago, and attempting to corner that market as it did with solar panels, lithium batteries, automotive

technology, and high speed rail and ship-making capabilities, among other industries.

Alarmingly the Chinese government understands that reality and changed its policy accordingly. Our continued leadership in emerging technologies thus depends on reliable access to chips made by U.S. companies and by companies headquartered in democratic nations, which could shape future relationships.

For that reason we ask USTR to conduct a thorough investigation of the policies and practices and implement appropriate trade restrictions to stop China and its state-sponsored industry to undermine free market competition.

Thank you very much for your time and consideration.

MR. BUTLER: Thank you.

We will now turn to questions. Just a reminder, we expect John Moolenaar to join us at 11:45, so we may need to pause questions for a few minutes. But why don't we start with questions with Mr. Landrith.

U.S. DEPARTMENT OF COMMERCE: Good morning, Mr. Landrith. Can you expand on your testimony about

the evidence of China favoring indigenous industries and the impact it has on U.S. commerce?

MR. LANDRITH: Well, there is a lot of various evidence. For example, they're a totalitarian regime, they, of course, can keep labor costs down and essentially have, in some regards, slave labor. Something that, you know, places like the United States and most of the Western world don't permit.

But then on top of that, I use a lot of the -- well, essentially government funding to expand things and do things that gives them -- as we've seen, they've radically increase their capacity. And, again, it's not for economic reasons because they've driven the prices down to the point where they are losing money too. But they're happy to lose money because they can drive out all their competitors.

They have a source of Chinese Communist Party money coming, they'll survive that. And the goal is to make us dependent upon them.

U.S. SMALL BUSINESS ADMINISTRATION: In your summary of testimony, you state that publicly available information broadly supports that China has expanded its

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share of global chip and chip-input markets by suppressing wages and creating artificially cheap labor. This is a two-part question.

Can you first please describe how China has suppressed wages and created artificially cheap labor and point us to the most relevant sources of this information. I'll have a follow-up question.

MR. LANDRITH: I'm trying to think if I had -- off the top of my head, I can't give you the source, but we did research to find out and I can certainly follow up to answer that part of your question. But the -- again, I think part of the issue here is -- and as an American, it's hard to imagine a totalitarian regime but they actually have slave labor there and they have -- you know, the government is a totalitarian regime that controls everything it wants to.

I would argue that the Chinese people are the biggest victims of the Chinese government. Kind of like the people of Iran. The people of Iran are the biggest victims of the Iranian regime. Of course, the rest of the world is too because they fund terrorism, but at least that is aside as opposed to every single day of

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your life being repressed.

That is part of the problem. It is hard for us to imagine because we don't really experience that and we don't visualize that and when we travel to other places like Europe that have more of a Western approach, which includes the idea of human right.

But, the Communist Party of China doesn't believe any of that. The individual exists to benefit the state and the state alone, and if they don't benefit the state, they will be killed.

U.S. SMALL BUSINESS ADMINISTRATION: So my follow-up question is in what segments of the semiconductor supply chain is the most prevalent?

MR. LANDRITH: Pretty prevalent in the area where they have radically increased their production. It may be prevalent everywhere but the state puts its emphasis on things where it sees an advantage. And it's a solid advantage in this -- if you all would like chip area, that is -- perhaps we in the past administration saw it as not that important and that turns out to be a mistake. And as a result of that, I think that's probably certainly an area where if you were to put it

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on a scale and weigh it, it would weigh heavily.

U.S. SMALL BUSINESS ADMINISTRATION: Thank you.

MR. BUTLER: Thank you. The next question is for Mr. Ferry.

U.S. TRADE REPRESENTATVE: In your written testimony, you noted a 60 percent increase in Chinese silicon carbide patents between 2021 and 2023 and that 70 percent of the global silicon carbide patent applications in 2023 were assigned to Chinese entities.

And would like to ask how, if at all, you in your view would do these data points suggest that China's acts, policies, or practices in this area are unreasonable or could burden or restrict U.S. commerce.

MR. FERRY: These policies are prompted by government subsidy by the Chinese government on a multi-billion dollar scale and we know that. You have the combination of massive government subsidies, the deliberate policy targeting markets and running large trade surpluses, IP theft which has been wide spread. It's been wide spread for a long time and notorious since 2003 where the Chinese government actually lifted

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entire sections of routing software code including comments and jokes by executives.

Their labor costs are competitive because they have a billion people in their population. The government will finance any company in target sectors and does on a national level, and secondly cheap energy where they do profit from slave labor and the cheap energy gives them a competitive edge in those industries.

And all silicon and all forms of semiconductors are energy intensive at the point where you manufacture the wafer, and that gives them a huge competitive advantage.

We can accept this if they kept it within their own country. We wouldn't like it but we would accept it, but the fact they are using that system to destroy industries in the West and that is dangerous for us both economically and national security tech terms.

Sorry, a bit of a long answer.

MR. BUTLER: Thank you. We are actually going to pause to allow for Chairman Moolenaar to testify.

Chairman, thank you very much for joining us.

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Can you hear us okay?

MR. MOOLENAAR: Yes, I can. Can you hear me okay?

MR. BUTLER: Yes. Thank you.

JOHN MOOLENAAR,

Chairman of House Select Committee on the CCP

MR. MOOLENAAR: Thank you so much. And Members of the Committee and Representatives from USTR, I want to appreciate the opportunity to testify today. And I come before you to strongly support USTR's Section 301 investigation into China's predatory practices in the semiconductor industry and urge immediate action to protect America's economic and national security.

Semiconductors are essential to the modern economy and military. And these tiny chips power everything from automobiles, medical devices, broadband networks to defenses systems and factory automation. Yet today, we face an urgent and growing threat. The People's Republic of China is flooding the global markets with basic semiconductors while rapidly expanding its production of advanced chips.

This move threatens American companies and

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weakens the U.S. industrial base. We've seen this dangerous playbook before. It is straight out of Chinese Communist Party's playbook. They start by creating a government subsidized monopoly that starts in a protected domestic market, produces products at below-market prices, exponentially scales production capacity, then dumps that overcapacity in global markets to tank prices and drive competitors out of the market.

What's left is a CCP controlled chokehold in a critical supply chain. China's semiconductor push is part of a long-term state-backed industrial strategy targeted at the entirety of the semiconductor supply chain.

As outlined in Made in China 2025 and the 14th five-year plan, the PRC has funneled tens of billions of dollars in subsidizing its semiconductor industry. PRC's state-owned entities have received billions to expand production while also stealing intellectual properties from U.S. companies. There was a Chinese chip company that was indicted for stealing IP. Meanwhile, the CCP makes it nearly impossible for U.S. firms to compete on level playing field by denying

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domestic market access when a domestic competitor exists.

We see the results of these distortions. The Chinese Investment Fund has raised over 100 billion since 2014 with a new 40 billion-dollar state-backed fund lunched in 2023. PRC accounts for nearly 50 percent of all global semiconductor manufacturing equipment purchases ensuring its supply chains while other nations fall behind.

This is not competition. It is state-sponsored economic warfare designed to dominate cutting edge and foundational semiconductor production and drive competitors out of the market. The chips data makes this clear. Analyzing current and announce PRC capacity by 2030, the PRC will control 60 percent of capacity highlighting how important action in both cutting edge and foundational action is necessary.

The consequences of PRC dominance in the semiconductor industry are existential. Supply chain dependency, if U.S. manufacturers become reliant on PRC-made chips, China can weaponize these supply chains restricting exports at times of crisis, as we've seen

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this already with critical minerals in just the past few months.

Economic and industrial collapse. U.S. firms are struggling to compete against artificially low PRC chip prices. American semiconductor manufacturing will shrink without decisive action leaving us vulnerable to foreign control. There are also military defense risks. Our defense systems rely on foundational semiconductors in fighter jets to missile guidance and secure communications.

If we allow China to drive out all competitors from the market, we jeopardize our defense industrial base. Also in emerging technology, semiconductors are some of the most basic capabilities enabling cutting edge U.S. companies to develop the technologies of tomorrow.

And seeing with semiconductor manufacturing, the U.S. may lose the lead in a number of technology sectors and that are still in development. The U.S. cannot afford to wait while China moves to dominate another global supply chain. The administration is rightly taking steps to limit PRC access to advanced

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semiconductor technology but we must also protect our foundational chip industry.

I urge the USTR to act decisively by Number 1, implementing tariffs to ensure that specific tariffs apply to any chip fabricated in the PRC and integrated into a final product entering the U.S. preventing China from exploiting loopholes.

Coordinating with allies. Working closely with Japan, South Korea, and Taiwan to prevent China from dumping subsidized chips in the global market. A united front would be critical in ensuring a level playing field.

The United States must act to counter's China's attempt to dominate the semiconductor industry. If PRC over capacity is allowed to persist, we risk losing a key pillar of our technological leadership. I strongly support USTR Section 301 investigation and call on this administration to use every available tool to defend our semiconductor industry from unfair PRC competition.

Thank you very much.

MR. BUTLER: Thank you, Chairman. Thank you

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for your testimony and taking the time to appear with us for this hearing.

Okay. We will now continue with questioning. The questions for Mr. Swarztrauber.

U.S. DEPARTMENT OF THE TREASURY: As a broadband and telecommunications expert, have you identified evidence of China's acts, policies, and practices in foundational semiconductors burdening or restricting U.S. commerce in technology industries like telecommunications?

MR. SWARZTRAUBER: Thank you for that question. I think the evidence we have heard today is pretty compelling about specific data from China which is, of course, difficult to obtain. The October 2024 reporting that prices had plummeted to unprecedented levels and report in Times Asia, which I can refer to in follow up described the prices as irrational, which comports with the comments earlier from the Department of Commerce showing that silicon carbide wafers were going for $500 a pop where before it was 1500.

So I think that coupled with the dramatic increase in patents, which I don't think is nefarious on

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its face but just demonstrates there's huge government interest in China in the sector because the economy there does not operate without the heavy hand of government involvement.

So I think that coupled with the historically low prices, the dramatic increase in market share, and then, of course, the fact that silicon carbide wafers beats other industries that China has cornered after we innovated those industries, I think there's plenty circumstantial evidence on its face, but I'm happy to follow up with specific information in my post-hearing comments.

U.S. DEPARTMENT OF LABOR: This question is for Mr. Lee. In your testimony, you mentioned that the Chinese government exploits unfair advantages including cheap labor and wage suppression to achieve dominance. Can you provide additional detail on the unfair advantages related to cheap labor and wage suppression that you're aware of? And then in what segments of the semiconductor supply chain is this most prevalent?

MR. LEE: Sure. We've all testified and obviously China commands they system so when we talk

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about cheap labor, they are able to command prices that they will pay for any of those products that are extracted made into components. And so that goes from end to end, which point is most dominant. We can talk about that. I will be happy to provide furtherer information, but from beginning to end, it's an issue and they are able to do that.

So in terms of talking about subsidies and in terms of wage suppression, I am certainly happy to provide more specific evidence of that. In our written testimony, we did provide hyperlinks for all the sourcing on the information we gave, so I can happily follow up with that as well.

U.S. DEPARTMENT OF STATE: Thank you.

MR. BUTLER: Okay. I think that concludes our morning panel. Thank you very much to the witnesses. We will take a break now for lunch. It's just about noon so why don't we come back here at ten to 1:00, that would be great. And we will start with the third panel. Thank you.

(Whereupon a recess was taken for lunch.)

MS. BIEL: Good afternoon, everyone. Let's

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take another two minutes and we will get started.

Good afternoon, everyone. We will proceed now with the third panel of the day. Before we do that, I would like to introduce myself along with my colleagues. My name is Erin Biel. I am at USTR. I've likely corresponded with many of you in advance of today, so it is nice to see you all today. We will go around and reintroduce ourselves for the audience.

U.S. DEPARTMENT OF LABOR: I'm Sonja Schaefer with the Department of Labor.

U.S. SMALL BUSINESS ADMINISTRATION: Sarah Bonner with the U.S. Small Business Administration.

U.S. DEPARTMENT OF THE TREASURY: Yifan Chen with the Department of Treasury.

U.S. DEPARTMENT OF DEFENSE: Kywaii Lawrence-Jackson, Department of Defense.

U.S. DEPARTMENT OF TRANSPORTATION: Becxi Sanchez with the Department of Transportation.

U.S. TRADE REPRESENTATVE: Rebecca Gudicello, I'm with USTR.

U.S. DEPARTMENT OF COMMERCE: Luke Myers, Department of Commerce.

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U.S. DEPARTMENT OF STATE: Ace Gazis, Department of State.

MS. BIEL: Thank you. Please let's proceed with Panel Three starting with Mr. Brzytwa. Thank you.

ED BRZYTWA,

Consumer Technology Association (CTA)

MR. BRZYTWA: Good afternoon. My name is Ed Brzytwa and I am vice president of international trade at the Consumer Technology Association. Thank you to USTR and the agency members of the Section 301 committee for the opportunity to testify today.

CTA represents more than 537 million dollars in U.S. consumer technology industry who supports more than 18 million U.S. jobs. Our members include over 1200 companies from every facet of the consumer technology industry with 80 percent being start-ups or small and medium-sized companies. We also own, produce CES, the most powerful technology event in the world, which showcases international policies concerning existing and new technology.

CTA's important to USTR's efforts to identify and investigate nonmarket policies and practices that

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pose disruptive barriers to trade unfairly manipulate the competitive landscape including in the semiconductor sector. We agree that mitigating risks such as single-market dependencies is an important objective.

But lowering the cost of trade for U.S. business to strengthen their supply trade and diversification efforts is even more important. In this regard, we urge USTR to be mindful of the limitations and consequences of even targeted unilateral action as it considers possible proposed actions resulting from this investigation.

Inflation continues to undermine our economic potential and increase costs for U.S. businesses and workers. Tariffs which are taxes on American businesses and consumers may increase the cost of technology products in the United States, which would undermine the goal of reducing inflation.

According to the CTA research, 55 percent of the industry experts indicate tariffs will increase retail prices for consumers. Ultimately, trade barriers such as tariffs do not shift supply chains or promote resilience. Instead they decrease productivity among

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U.S. industries, fails widespread job creation, and do not create or lead to significant domestic investments and manufacturing.

Legacy chips are crucial inputs for consumer technology products and a global economy. In fact, CTA research found that 72 percent of industry experts indicate their company will continue to source legacy semiconductor from China stating that performance and quality overall -- sources and supply chain reliability are main factors for continued use.

Unilateral action through a Section 301 investigation even though focused on Chinese semiconductor products and practices could harm part of the U.S. industry downstream users in action it aims to protect. We are particularly concerned about the references in the Biden administration's notice of initiation to downstream products, which risks bringing an undefined and expansive universe of products into the scope of the investigation.

With these factors in mind, we encourage the Section 301 Committee to consider a wide range of potential remedies and avoid focusing exclusively on

tariffs. Instead we recommend pursuing remedies in line with existing lists and actions from Section 5949 of the 2023 NDAA focusing on Chinese chip makers and foundries of concern.

Furthermore, we believe that a multi-geography team approach is best suited to counter non-market policies and practices. Acting with the support of and coordinating measures with allies and like-minded trading partners is a force when confronting such challenges. This approach must also include the interagency, which is here in force today.

U.S. industries and U.S. allies working together to support the competitiveness and resilience of the semiconductor sector and related supply chains. After all, private sector companies create and operate supply chains, not governments.

To conclude, we urge USTR to take a whole government approach and engage like-minded countries to address the challenges posed by China. We look forward to providing more detailed feedback in the post-hearing written comments. Thank you for your time and consideration.

MS. BIEL: Thank you.

Mr. Johnson, please proceed with your testimony.

KYLE JOHNSON,
Information Technology Industry Council (ITI)

MR. JOHNSON: Thank you for the opportunity to testify today. My name is Kyle Johnson and I am the director of trade policy at Information Technology Industry Council. We provide policymakers with the broad perspective in technology hardware, software services and related industries. Semiconductors are vital to the U.S. economic competitiveness and security as well as many technologies that rely on these chips.

The semiconductor industry is unique from other industries in terms of supply chain complexity, foundational and economic role, and the breath of stakeholders involved in the industry. Government and private sector collaboration is essential.

We also encourage the development of a comprehensive approach to address China's unfair trade practices. Multi-national companies face large challenges from anti-competitive and non-market

practices in China and the Chinese government continues to pursue policies intended to fulfill its goals for self-sufficiency in industry sectors.

Further, China's 2014 National IC Plan, Made in China 2025, and other policies sought to encourage the development of Chinese semiconductor companies oftentimes leveraging significant state support to compete with U.S. and other nations.

Government intervention in the sector can create undesirable effects for the global semiconductor supply chain and distort fair trade, investments, and practices. As policymakers conduct this investigation, I'd like to briefly summarize some of the recommendations we included in our written comments: To increase engagement, clarify the scope of the investigation, to develop comprehensive policy approach, to increase international engagement, and to create an effective, strategic approach for any trade.

Given the importance of the topics under this investigation, the significant breath companies and industry reliant on semiconductor, the government must increase analysis and engagement with stakeholders

inside and outside of the industry. This will help the government to gain a more comprehensive understanding of the ecosystem and issues that will help them avoid taking actions have severe negative consequences for the economy or U.S. technology companies' competitiveness.

Government should also further clarify the scope of intent of this investigation and should take a risk-based approach to assessing national security concerns. We are concerned that this effort signals the broadening of U.S. action beyond China's access to cutting edge technology.

Implications of potential to place semiconductor remedies for a wide range of consumer products would we significant. Further, many of these products do not have national security implications. In the event that the USTR decides to impose remedies, we urge the USTR and the inter-agencies to maintain a narrow focus on the critical products with a clear, national security risk to minimize the impact on U.S. businesses, manufacturers, and consumers.

We also encourage the government to more clearly define the foundational semiconductors for this

investigation consistent with other policies while keeping in mind there are a range of different types of chips, each with its own dynamics.

Further, USTR should clarify the scope of semiconductor production for this investigation to exclude back end processes such as testing and advance packaging particularly for semiconductors made by foreign firms and industries. For the U.S. to maintain its technology leadership, the whole government approach in close partnership with the industry is needed.

This includes policies that build on the significant investments and progress made in recent years by the private sector and the U.S. government such as developing a national semiconductor R&D strategy, ensuring sufficient funding is provided for critical R&D assigned focused work and extending and expanding the advanced manufacturing investigation.

The government should also focus on preserving and expanding opportunities for U.S. firms to sell to other markets. The international trade is crucial to American competitiveness and innovation, businesses of all sizes, workers, and consumers.

If the administration determines that there are unfair acts, policies, and practices that are actionable under Section 301, we encourage policy makers to develop an effective strategic approach by assessing the effectiveness of existing trade actions.

First, identify a clear objective and ensure any trade actions are employed strategically, study potential domestic harms when considering actions, establishing a permanent and robust execution process ensuring that any trade actions are able to be effectively applied by the government and offsets are considered to reduce the burden on business, aligning policies with other related U.S. government activities, and conducting transparent and in depth stakeholder engagement before, during, and after any political actions.

To close, we appreciate the opportunity to provide comments on this investigation and look forward to working and partnering with the USTR in the Trump Administration to support. Thank you.

MS. BIEL: Thank you, Mr. Johnson.

Mr. Delsol, please proceed.

GABRIEL DELSOL,

Computer & Communications Industry Association (CCIA)

MR. DELSOL: Thank you for the opportunity to provide to input in this investigation to the People's Republic of China PRC's acts, policies, and practices related to the targeting of the semiconductor industry.

I'm Gabriel Delsol with the Computer & Communications Industry Association CCIA, a trade association of internet technology firms. Many include foundational semiconductor also known as legacy chips as inputs.

CCIA recognizes the importance of these chips to U.S. economic and national security and welcomes the opportunity to cooperate with the U.S. government on efforts to address foreign practices that distort this critical market while ensuring the continued competitiveness of leading U.S. firms.

In our company written submission, the range of acts and policies in this sector, and the recommendation for best policy responses where such measures are unreasonable, discriminatory or burden U.S. commerce. My comments today will address the

actionability and determination as requested from the perspective of industry players that integrate legacy chips as components into various products.

The first topic I'd like to address is the notion that the PRC adopts act, policies, and practices related to targeting the semiconductor industry for export dominance. We have a need for this investigation to further specify the nature of evidence relevant to make a determination. The notice for this investigation cites the PRC's Made in China 2025 national strategy plan as preliminary evidence.

However, this document seeks Chinese domestic content of core materials including legacy chips suggesting an attempt at import substitution rather than export dominance, the latter of which is more focused of this investigation. The notice of this investigation also cites Chinese efforts to achieve self-sufficiency as a potential qualifier to indicate an attempt to export dominance.

Given that numerous countries including the U.S. government and key trade partners adopt similar policy goals, CCIA recommends this investigation further

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qualifies the PRC's efforts are uniquely different and harmful. If USTR is to establish actionability and determination of this investigation, we recommend that it do so on the basis that the identified policies are clearly intended to achieve export dominance and in a manner distinct from those being undertaken by the U.S. government and the key trading partners.

The second topic I would like to address is the topic of anti-competitive and nonmarket policies employed by the PRC for the purpose of targeting the legacy chip sector. To that end, I would like to note that the majority of the policies employed by the PRC in this regard are neither unique to China nor the legacy chip sector.

First, as mentioned, multiple governments including the U.S. and key trading partners have employed market access barriers and nontariff trade barriers to support the domestic semiconductor industry.

Moreover, of the policies that do inhibit foreign firms' ability to operate in China such as the forced transfer of intellectual property, most of these are nonspecific to the semiconductor industry and

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instead represent market-wide barriers that should be addressed accordingly as they were in the first Trump Administration's U.S. China agreement.

Therefore, CCIA recommends that any actionability determination on this topic be based on identifying specific strategies pursued by the PRC that undermines the legitimateness of foreign firms specific to the semiconductor sector to contribute any subsequent remedies are appropriately tailored.

The third topic I will address is the question of whether the PRC's policies burden or restrict U.S. commerce in legacy chips and related downstream industries. There are several reasons why developments in China's semiconductor sector are likely to have a limited impact on the pricing ability in commercial performance on producers outside of China, particularly those in the U.S.

Notably, the most significant factors impacting the health viability of the U.S. semiconductor industry emanate from within the U.S. itself rather than the development in China. The U.S. government's estimation of challenges to the growth of semiconductor

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production relate to capital costs, labor ability, and other domestic factors. As a result, it costs up to 30 percent more to build a new factory in the U.S. than it is to build similar facilities in Singapore, South Korea, or Taiwan.

Moreover, in the context of downstream industries, the risk of dependence by U.S. firms on Chinese suppliers is low. The use of Chinese fabricated chips in U.S. supply chains already faces limits and is likely to decline further. There is also the case of the current presence of Chinese fabricated chips in the U.S. supply chains is exceedingly low indicating the PRC source semiconductors are not in the position to create vulnerabilities for the U.S.

Therefore CCIA recommends that U.S. develops actionability termination for dependence within the legacy chip sector based on a clear indication that the lack of domestic production of such chips is due to policies by the PRC and not largely due to market factors within the U.S., and specific to downstream products, that PRC chips represent a significant amount of chips by unit and by value as to induce a risk of

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dependence.

I hope these comments assist with U.S. actions, abilities, and determinations in this investigation and we look forward to the opportunity to contribute further to this investigation. And I appreciate your consideration. Thank you.

MS. BIEL: Thank you, Mr. Delsol, for your testimony.

Mr. Fischer, please proceed.

FRED FISCHER,

National Electrical Manufacturers Association (NEMA)

MR. FISCHER: Thank you. My name is Fed Fischer and I'm the managing director of global policy at the National Electrical Manufacturers Association. NEMA is the leading trade association representing U.S. manufacturing of electrical goods. We are a more than 300-member company directly employing nearly half a million workers across 12,500 facilities across 50 states contributing more than $270 billion to U.S. economy and leading producers and manufactures for the grid, industrial, and mobility sectors, the U.S. consumption exceeds $340 billion annually.

Electrical manufacturers played a pivotal role in securing American energy independence and ensuring a secure grid. Investing tens of billions of dollars in U.S. manufacturing and creating thousands of new jobs for the American workers across the country.

We are the second largest U.S. exporter and the second largest U.S. importer of manufactured goods. In 2014, U.S. exported $143,000,000,000 and imported $286.5 billion. Since 2018, the electrical industry has taken significant steps to reduce reliance on Chinese materials decreasing China's share of U.S. imports from 27 percent to 17.8 percent while significantly growing its electrical industry trade across North America by 36 percent.

The U.S. electrical industry is a major consumer of foundation as well as one of the largest manufacturers of semiconductors in the U.S. economy, the electrical industry is one of the largest purchasers of foundational semiconductors.

These legacy chips are incorporated into tens of millions of dollars of the electrical industry manufactured in the United States for use in the

industrial, electrical, and mobility sectors. And their use is growing. Legacy chips are critical and function many types of electrical goods that we use today.

NEMA supports the policy bills in Section 301 and the investigation on China's acts, policies, and practices related to targeting the semiconductor industry for dominance. We would like to work with USTR and share the electrical industry's extensive experience and knowledge of global supply chains, our knowledge of China's legacy chip suppliers, and the organization of legacy chips in the U.S. and global manufacturing.

Any significant disruption in legacy chip supply will have a negative impact on production of electrical goods and many other manufactured goods in the United States. And it is critical to the electrical industry that there be no lapse in the availability of foundational semiconductors on competitive terms in any proposed remedy measures.

NEMA appreciates the opportunity to testify today and we look forward to working with the USTR staff in this investigation. Thank you.

MS. BIEL: Thank you, Mr. Fischer. We will

now begin with questions from the 301 Committee starting with Mr. Brzytwa with the U.S. Department of Commerce.

U.S. DEPARTMENT OF COMMERCE: Can you elaborate on how, if at all, China's acts, policies, and practices on semiconductors affect downstream products such as consumer technology products?

MR. BRZYTWA: Thank you for the question. Consumer technology is a very broad industry. Everything that consumers use that has some electrical components, to reference my colleague's Fred's testimony, likely has a chip in it. Items that we use in-house every single day, items that we're using right now in this hearing.

So it's -- we are trying to do research. We will have research to share in more detail in post-hearing comments given the timeline of putting this together, we wanted to make sure you have good data but it was tough to get it into the pre-hearing comments.

MS. BIEL: Thank you. The Department of Treasury has a question for Mr. Johnson.

U.S. DEPARTMENT OF THE TREASURY: ITI's public comments state that multinational companies face immense

challenges from anticompetitive and non-market practices in China. Can you elaborate on how these challenges in the semiconductor sector affect the businesses of your member companies.

MR. JOHNSON: Sure. Certainly this is a topic that's been investigated and looked into with great depth by the U.S. government. There's a whole range of issues that have been investigated previously, so that's -- it's clear more work needs to be done and more research to really comprehensively answer the question you're asking. What exactly are the practices happening and what are the impact on stakeholders on U.S. industry. So I want to emphasize that aspect of our recommendations as well. I think there's a lot more work to be done to really understand the set of issues here and how to potentially proceed.

U.S. TRADE REPRESENTATVE: Thank you. During your public comments and testimony today, ITI stated that mature-node semiconductors are ubiquitous and found in almost all technology products. To your knowledge, which industry or products have the highest demand for

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mature-node semiconductors?

MR. JOHNSON: I don't know offhand. I do know just generally I would say there's an industry and I think we all have a very good practical example of that. During the pandemic when we saw foundational semiconductors across many different sectors. So -- and I would say that this is not specific but generally they are used across the economy, they are important across the economy.

There is a lot of stakeholders that are involved like the questions that you are investigating. So I would just say it's quite broad. There's lots of different stakeholders, and I can happily look to find more specifics.

MS. BIEL: Thank you. Mr. Delsol, the Department of Transportation has a question for you.

U.S. DEPARTMENT OF TRANSPORTATION: CCIA stated in its public comments that semiconductor capacity for specific nodes or uses is not fungible. Can you please elaborate on this point? Are there specific nodes or end uses where Chinese capacity is predominant?

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MR. DELSOL: The definition is fairly broad, and many of my colleagues have pointed this out as well. Members of the industry in general could specify which component we are speaking about and with that, I think it has different implications in China's acts and policy.

As to the second question, I can't speak to that. Again, that is based off of finding -- and members of this industry to determine exactly where they are but I would be happy to provide more detailed in my post-comments. Thank you.

MS. BIEL: Thank you, Mr. Delsol.

Now we will proceed with questions for Mr. Fischer starting with The Department of Treasury.

U.S. DEPARTMENT OF THE TREASURY: In your prehearing summary testimony, you wrote that the electrical industry is a major consumer of legacy semiconductor. Do you have an estimate of what portion of legacy chips used in the electrical industry sourced from China versus elsewhere? And how, if at all, China's acts, policies, and practices related to legacy semiconductors affected the electrical goods industry?

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MR. FISCHER: So thank you for your question. So the electrical industry is roughly about 10 percent of manufacturing in the U.S. so I don't have an exact number on the legacy chips.

Just to follow up on a previous question, we also represent about 40- to 50 percent of the electrical vehicles via chargers, motors, electronic equipment, et cetera, and according to our knowledge, those vehicles have about a hundred legacy chips on each vehicle times how many vehicles we're talking about, so I think the automotive industry are the largest consumer of these particular products.

And also on the certification question, we have just established that our association, a certification compliance program and it's going through a small, medium, and large suppliers to understand their supply chain so they can comply. I think it is important for our members to make these adjustments.

As far as China's practices, I think we are aware that the chips that are coming from China have certain advantages and there is a cost advantage. That is one of the biggest advantages.

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U.S. DEPARTMENT OF COMMERCE: What practices could downstream companies employ to improve their tracing of semiconductors in their products?

MR. FISCHER: So what we have is a compliance process certification so that's how we go about. The point is how do you go about setting the supply chain. What are the best practices, and also product certification. So both the process and the product and we are just -- we've just established this. We just established those product specifications and we are working not just within our industry but also applying this certification beyond our specific industry perhaps to others and other cities in the U.S.

U.S. DEPARTMENT OF COMMERCE: Thank you.

MS. BIEL: With that, we conclude Panel Three. We can take a 15-minute break. Let's say 1:50. Thank you.

(Short recess taken.)

MR. BUTLER: Okay. We're going to start Panel Four, the last panel today. We will start the testimony with Mr. Picarsic, please.

NATHAN PICARSIC,

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Horizon Advisory & Foundation for Defense of Democracies

MR. PICARSIC: My name is Nathan Picarsic. I'm the co-founder of Horizon Advisory, it's a supply chain. Thank you for the opportunity to join this public hearing and thank you to USTR for initiating the investigation and hearing, and to all of you here today.

The initiation of the Section 301 investigation into China's acts, policies, and practices related to the development of dominance in the semiconductor industry is a critical step in bringing awareness to the PRC's nonmarket needs for overtaking critical, technological sectors more broadly. These nonmarket means have harmed the U.S. industry and the use of trade remedies in the foreign market as well as U.S. is both necessary and appropriate.

But it cannot be overstated that the Chinese approach for market dominance in the technology sectors like the focus here is enduring and adaptive. Measures to protect U.S. industry and U.S. commercial actors need to be taken.

In my submitted testimony, I focus on silicon carbides as well as third generation compound

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semiconductors, and more generally, as examples of where this state-led cross-stream approach applies. China uses nonmarket means to protect competition. Its priorities is a clear intent to harm U.S. industry and prohibit U.S. commerce.

The Chinese government industrial, scientific, and technological policy prioritizes the semiconductor sector. Beijing's research and development directly supports companies and also restricts access to the Chinese market. This playbook including government guided policies and acts should sound familiar.

Chinese sees silicon carbide in the third generation sector, more generally, as an area in which to overtake international competitors. China diagnosis that their application, which include everything from EVs to telecoms to defense in these cases, carry high value in emerging technology in competition with the U.S. moving forward.

Silicon carbides among pertinent materials leveraged for these third-generation semiconductors and materials used to control thermal electrical power is an increasing, critical step of commercial and national

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security in these cases. The Chinese government's emphasis are reflected in PRC policy at the highest national level as well as on down to the municipal plans.

Beijing's plan for economic and social development, explicitly elevated wide bandgap semiconductor materials, including those in the silicone carbide track. These can elevate to the level of national security calling for the development of silicon carbide and other wide bandgap semiconductors.

They also made clear about the objective to national policy. It's to establish Chinese dominance. And wide bandgaps in the industry or per an action plan to develop circuit industry clusters, the goal is to seize the community heights of the industry. These examples represent a broader and consistent prioritization in Chinese government industrial planning.

The application of third-generation of semiconductors to prior use cases including military platforms and data centers guarantees that China prioritization is set to continue and expand moving

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forward. These examples constitute just one slice of China's policies and plans outlining prioritization of widening the gap of semiconductors. Additional cases can readily be document, so can more concrete cases of the -- of Chinese support.

Those include direct subsidies to companies, participation in government funded R&D as well as activities of government-supported manufacturing and innovation in the zones and centers that promise additional concrete evidence of the preferential policies that the government uses to afford nonmarket advantage for the Chinese players.

This review of supply chains is commendable but it should be informed by the need for an appropriate response. That should include tariffs on silicon carbide components as well as compound semiconductor inputs including those that feed into downstream applications in these cases.

U.S. policy today will deliver a level playing field by placing tariffs on finished goods on products that use Chinese-origin inputs. These downstream reviews and actions are needed to review the actions

like and localization of the assembly of Chinese production. Don't allow for continued exploitive exporting of distortive affects in China. Thank you.

MR. BUTLER: Thank you.

Mr. Pollard.

MIKE POLLARD,

Wolfspeed

MR. POLLARD: Good afternoon. My name is Mike Pollard, deputy general counsel and chief of Wolfspeed Incorporated located Durham, North Carolina. As a world leader in silicon carbide materials and devices, I appreciate the opportunity to attend this hearing. We will need to maintain U.S. leadership in this rapidly evolving industry is paramount and U.S. semiconductor self-reliance is necessary to complete this goal.

Wolfspeed pioneered the commercialization of silicon carbide for the semi industry nearly 40 years ago and acutely understands the role semiconductors play in solving tomorrow's complex technological challenge.

This is especially true and unique for silicon carbide semiconductors. As silicon carbide devices gain traction in advanced applications including defense,

energy generation, industrial applications, and the AI data centers, the need for low defect, high quality semiconductor materials is crucial. All to achieve the performance and reliabilities demanded by tomorrow's advanced applications and for U.S. national and economic security.

We believe that China is pursuing silicon carbide market dominance through various methods including unfair practices and believe that China is well on its way to achieving its goal. We experienced it firsthand. China's growth in the silicon carbide development in technology advancement has no market-oriented explanation and appears to bend the laws of science.

Chinese silicon carbide companies are so far removed from traditional market forces, they conduct a majority of their output into landfill and still survive. A few observations: The Chinese has more companies dedicated to silicon carbide. Less than ten years ago, China had few, if any. Today, the number of companies producing silicon carbide in China approaches 40.

It took Wolfspeed and other American companies several decades to achieve current wafer quality and volume levels. It appears that China got there in less than five. Chinese semiconductor equipment companies promote complex crystal growth and Epi machines that appear similar, and in some cases, identical to proprietary Western tooling and equipment.

When it comes to wafer diameter, China progressed with 100 million to 150 million in about two years and from 150 to 200 million a year in less than two years. It took Western companies approximately 15 years to make these leaps. This indicates a non-linear knowledge accumulation complemented, of course, by massive state-sponsored investments.

Lastly, intellectual property theft is real. Wolfspeed has experienced it, and we encourage the committee to continue its engagement for further details. China's policies and actions including seemingly unlimited government financial support, market access restriction, industrial subsidies, and resulting decreases in domestic and global prices have led to significant capacity expansion creating an imbalance in

global market and an over-concentration in production capacity in China.

If left unchecked, China's rapid expansion in silicon carbide combined with the aggressive pricing strategies only made possible by unfair trade practices will result in the -- of global competition, thereby jeopardizing the ongoing viability of U.S. semiconductor manufacturers.

Through a combination of public and private efforts, the U.S. is investing across semiconductor industry including through the CHIPS and Science Act but more must be done. To effectively level the playing field and safeguard the U.S. semiconductor industry, Wolfspeed urges the U.S. to consider tariff and nontariff actions across a full range of authorities set out in Section 301C of the Trade Act.

Efforts must be focused on full usage of existing affirmative policy tools including those established by the CHIPS Act. Industrial policies encourage repatriation of semiconductor manufacturing back in to the U.S. and tariffs on products destined from the U.S. domestic market including Chinese silicon

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carbide substrates and the devices containing silicon carbide.

We recognize that with pertinent downstream products coming into the United States from multiple countries of export designing an effective remedy including tariff elements will be more than usually complex. We look forward to engaging in more depth at the appropriate time with the USTR on potential remedies.

Further, this is not solely a U.S. issue. It is a global concern requiring a coordinated global response. The supply chain dependency that results with China over capacity poses a developing threat to national security due to the critical role of advanced semiconductors and in particular silicon carbide semiconductors play in defense and other key strategic sectors.

If the United States or allied countries become too reliant on China, military preparedness and critical infrastructure including IA -- artificial intelligence systems could be heavily impacted.

On behalf of Wolfspeed, I want to thank you

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for all your time and look forward to continued engagement with the USTR.

MR. BUTLER: Thank you.

Mr. Clemmer.

RICHARD CLEMMER,

Pallidus, Inc.

MR. CLEMMER: Thank you. Good afternoon. I am pleased to be here today as chairman of Pallidus, a U.S.-based science start-up company headquartered in Albany, New York. Pallidus has a unique patented process for producing silicon carbide substrates, a technology that's derived from NASA's polymer conversion process. With over 78 patents and application globally, Pallidus is at the forefront of innovation and its critical space in power management and reduction, and we appreciate the opportunity to provide our input in response to the request.

We are deeply concerned about the unfair trade practices of the People's Republic of China and that it clearly targets the semiconductor industry. These actions are putting American companies including Pallidus at a significant disadvantage in this important

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industry, which the U.S. has created and led since over the last six decades. The PRC has provided massive subsidies to local manufacturing enabling them to make massive investments to rapidly expand their capacity for silicon carbide wafers, even though the -- even though their production costs are unfavorable to the U.S. and Western suppliers.

These subsidies include direct capital injections, favorable land and energy credits and more, all of which are unavailable to the Western companies. This creates an unfair cost advantage that has allowed Chinese companies to flood the market with products at prices well below that established market value for Western companies.

Pallidus, as you know, is a company and as a result the silicon carbide market, especially 6-inch wafers, which are critical for electric vehicles and all power-relate applications such as AI data centers, had been severely destabilized. In fact, Pallidus was forced to abandon a $650 million expansion plan due to a 60 percent reduction in the market price over only a few short months driven by this unfair competition.

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Other industry leaders such as Wolfspeed have also been forced to lay off workers, delay investments, and reduce costs as a result of the PRC's action. All of these companies are clearly at risk of survival based on the artificial economics being driven by the competition from the PRC. These practices are not only harmful to the economics of the silicon wafer market but also have negatively impacted valuation in capital markets making it nearly impossible for emerging companies like Pallidus to raise funds to continue to support this research and development.

The situation demands immediate action. And the same time, we must look forward to the future of this critical industry. With the U.S. energy demands set to expand by more than 200 percent in the next five years driven by electric vehicles, defense, and more, the need for next generation semiconductor technology has never been greater.

This is an opportunity for new leadership technology such as silicon carbide substrates that are essential for advancing ultrahigh wafer devices like IGBTs which play a key role in power generation

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transmission and high performance applications such as AI and defense technology.

Pallidus has developed a unique PVT growth method that sets it apart from other substrate providers. Our trademarked technology enables us to produce silicon carbide substrates with unprecedented precision addressing the limitations of traditional methods.

Moreover, the PRC's flooding of the market with substrates has severely hampered our ability to compete or raise additional funds for new key technology. Despite this, Pallidus continues to pitch forward in the development of this technology, which has already garnered interest from prominent institutions including the Army and Navy research labs.

To ensure American leadership in these next generation powered electronics, we must protect the U.S. supply chain and take decisive action to counter the PRC's unfair trade practices. Tariffs for China such as 50 percent tariffs are a step in the right direction but additional measures are required. The semiconductor industry is at risk of facing the same supply shortage

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that all -- that we've seen in all cases such as solar as well as rare earth materials where over 90 percent of production is now controlled by China.

If we don't act now, we risk losing our U.S. competitive edge in this global market. In conclusion, Pallidus believes that U.S. must take a proactive stance and defend its technological leadership particularly in the critical area of silicon carbide substrates. During the decades that I've spent in the industry leading major semiconductor companies, I personally have observed the actions taken by China to dominate the semiconductor industry, which they have prioritized in the last few years through massive investments and others supports actions.

While the U.S. has recognized the rising threat and reacted with some initial actions, this is clearly not sufficient to defend against the aggressive PRC actions. Pallidus stands ready to collaborate with our government and industry partners to ensure that we not only protect our interest but also establish our foundation for the next generation of powered electronics that are so critical to support the huge

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investment of AI data centers as well as protecting our critical defense industry.

Thank you for the opportunity to share these insights and we look forward to continuing the dialogue across the industry.

MR. BUTLER: Thank you.

Ms. Stewart.

SARAH STEWART,
Silverado Policy Accelerator

MS. STEWART: Thank you so much to the chairs and to the broader teams working on this issue. My name is Sarah Stewart. I am the CEO of Silverado Policy Accelerator. We are a bipartisan geopolitical think tank here in DC focused on national security and economic security. I'm honored to provide this testimony today to China's predatory acts, policies, and practices to dominate the global semiconductor industry.

We've provided extensive comments to USTR and both the actionability of moving forward with this investigation as well as a proposed remedy and have published a number of reports on the semiconductor industry that you can access on our website.

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I would like to start with a foundational premise. U.S. manufactures of semiconductors and other products have a right to compete on a level playing field with Chinese firms. I didn't actually say this. This was said approximately 20 years ago by then USTR Zoellick who made the statement when USTR initiated its dispute against China at the WTO.

At that time, China's semiconductor market was valued at $19 billion and was the world's third largest. Since that time, China's nonmarket policies and ambitions to become semiconductor self-sufficient have driven it to now hold the title of the country with the largest semiconductor manufacturing capacity of any other in the world by orders of magnitude.

I urge USTR to take note of China's unprecedented growth and undeterred activity in the sector despite decades of the U.S. acknowledging the problem, China's use of a familiar blueprint of government subsidization to drive overcapacity and export of production to depress prices, gain market share pursuant to its stated targets and assert leverage over the supply chains.

I'd like to highlight three key points today. While the scope at USTR notice applies to the semiconductor industry at large, I want to draw your attention to what is happening with the foundational semiconductors. While the U.S. and other countries have focused on preventing China from acquiring advanced chip technology, China has been doubling down on dominating foundational chips which accounted for approximately 76 percent of global semiconductor production in 2024.

Importantly, China is on track to lead in foundational chip production and install three times as much capacity during 2024 to 2027 than any other country. So why should we care? Aren't these commodity chips anyway? The answer is no. Foundational chips are necessary for every application that also uses an advanced chip and they're essential for a range of end uses including defense.

They are fit for a purpose, they can be commodity or technologically innovative. Seeing foundational chip market to China means that it has control of whether items are ultimately built. It can hold back a supply from the U.S. and the rest of the

world, it can depress prices to gain market share from U.S. companies, and it can use this leverage to push back on other U.S. measures to prevent IP theft and technology transfer of advance nodes.

China knows this, which is why its investing enormous amounts of resources into dominating this segment of the market. Second, China's nonmarket practice and industrial policies is driving its capacity expansion orientation that is already undercutting U.S. producers. As we are hearing, China is accomplishing this through many policies including the Made in China 2025 and the big measures that are pumping tens of billions of dollars in subsidies to Chinese semiconductor companies, equity investments, and joint ventures in Chinese firms, low price land, reduced taxes, and more.

China is not just looking to advance its role in this sector but to dominate it and these measures are spread across the entire semiconductor value chain. Indeed, China's repeated weaponization of critical mineral supply chains in response to U.S. export controls and tariffs is well documented. They know that

critical minerals are a key input to semiconductor fabrication process.

Finally, all of these measures are propping up Chinese companies to the detriment of U.S. companies. U.S. companies are not -- competing not only private Chinese companies benefiting from government subsidies but with companies like SMIC and YMTC that all have substantial Chinese and growing government ownership. It is not -- it is simply not fair.

With a leg up, Chinese firms are able to export the global market of unfairly set prices sometimes up to 20 to 30 percent lower, sometimes more. This is not a competitive environment where U.S. innovation and leadership can flourish. Rather the lower prices and loss of market share make fewer market segments for U.S. producers to compete, higher per unit production costs, a loss of revenue, more competition in high-end segments, and danger to supply chain security.

Acting now would help stem the tie and to allow the U.S. to compete on fair footing. There are ways to address this including tariffs that not only cover the wafer but any Chinese designed and fabricated

semiconductor that is a component in another product.

I will stop there and I appreciate your attention today and I welcome any questions. Thank you.

MR. BUTLER: Thank you, Ms. Stewart.

We will now turn to questions beginning with Mr. Picarsic.

U.S. TRADE REPRESENTATVE: Good afternoon, and thank you, Mr. Picarsic. You identify a number of PRC policies and plans prioritizing and supporting wide bandgap semiconductors. Can you please elaborate how, if at all, in your view China's acts, policies, and practices related to wide bandgap semiconductors are unreasonable or discriminatory?

MR. PICARSIC: They are applicable only to Chinese companies and those that comply with the industrial policy mandates of the Chinese ecosystem so clearly discriminating against companies that are not interested in following through the nonmarket tools that are afforded by the Chinese Communist Party led, state led driven model.

And those policies, specific acts and policies submitted in my written submission that are just

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examples of PRC, such policies clearly afford access to support that is not reflected elsewhere in the global markets. We heard examples of these cited here today but they include everything from direct subsidies and preferential support for subsidizing the purchase of equipment as well as softer subsidies that touch everything from human capital to litigation support for supporting companies that get in the crosshairs of intellectual properties.

It's clearly demonstrated both through the policies and plans and also the contradiction received from companies that there is a strategic intent executed from the government and it is afforded only to companies on the Chinese side of a certain nature.

There is also an escalation of this support so as companies are able to work their way through the Chinese industrial policy system, demonstrate technologically but also in terms of willingness to capture global market share, they received additional support.

So I think that escalation further demonstrates the discriminatory nature of the support

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that China affords it.

MR. BUTLER: Thank you. The next question will be for Mr. Pollard.

U.S. DEPARTMENT OF COMMERCE: Good afternoon. Can you please elaborate on how the silicon carbide industry has changed in recent years, including changes to the competitive environment? Have these changes impacted Wolfspeed's ability to invest in or maintain its operations in the United States?

MR. POLLARD: So it has changed. What was a traditional path was overtaken by Chinese competitors who have seemingly endless or bottomless pockets to produce silicon carbides. And the result of that is heard from many panelists here today is a dumping in the market artificially lowering prices. That, of course, impacts Wolfspeed as an example, but other semiconductor companies' ability to compete, lose market share, and that all contributes to what we're able to do as far as building infrastructure, building additional capacity, building advanced facilities.

So the practice is that we are seeing out of China are impacting the semiconductor industry at large

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and it is -- the impacts are real and we're feeling them and we have to do something to stop this now.

U.S. DEPARTMENT OF DEFENSE: Wolfspeed's summary of testimony references sub-standard PRC materials that can introduce significant risks to critical U.S. supply chains. Can you please describe how Chinese silicon carbide materials are sub-standard in your view. Also, what sort of vulnerabilities can result from use of these materials?

MR. POLLARD: Sure. So silicon carbide is not the easiest material to produce. It's complex and takes time, takes time to perfect. Wolfspeed has done nothing but silicon carbide for 40 years. We have hundreds and hundreds of patents not only in the silicon carbide itself but numerous trade secrets on how the silicon carbide is made.

And, you know, you talk about the quality of China's silicon carbide. One of the things we noticed in China is that there's so many companies popping up and they can attempt to grow silicon carbide, throw more than half of it, 80 percent of it away, but it's a volume game to them. And if they can just keep

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producing it, they will have enough to flood the market of silicon carbides that is acceptable for some uses to flood the market.

The problem is if silicon carbide, if poor quality of silicon carbide gets into the market, it can cause problems in the applications. So I would not want Chinese silicon carbide in military equipment for supporting the U.S. defense for reliability reasons.

We've at Wolfspeed has spent years focusing on the quality of our silicon carbide and the materials from China are not close. They are getting closer very quickly but it's -- the quality is what matters. And then, you know, for application is in AI data centers and that's even more important because AI data centers require they put out a lot of heat, silicon carbide helps in that aspect by reducing the heat generated from that massive technology working and, you know, failure there could be catastrophic.

So, you know, the quality in the silicon carbide is key and I would not want to put the U.S. key sectors in the hands of inferior silicon carbide.

U.S. DEPARTMENT OF THE TREASURY: The next

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sets of questions is for Mr. Clemmer.

In your pre-haring summary of testimony, you wrote that the PRC provides substantial subsidies to support local wafer manufacturers to significantly expand capacity for SIC wafers despite unfavorable production cost points.

Can you elaborate on what you mean by unfavorable production cost points in the semiconductor industry?

MR. CLEMMER: So it is a common practice, not just in silicon carbide, but across the industry as China has prioritized semiconductor production in a five-year plan that they have all forms of subsidies including investments, land availability, funding of new production capacity. So it's broad based prioritized by the government such that the capacity is expanded in a very easy fashion, which lead to their focus on silicon carbide where they generated significant investments and flooded the market with capacity at a fraction of cost before it's been shipped from the Western worlds.

Artificially through the artificial economics associated with the subsidies from the government, we

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know for a fact this takes place and it's taking place broadly but more recently focused on silicon carbide. They've chosen to see how they can dominate the silicon carbide industry seeing the opportunity for the growth associated with the power requirements for AI data centers as well as all the other significant power requirements that are going to be factored for the U.S. where data centers today deliver less than 3 percent of the overall electric usage by 2030 is projected to be over 10 percent.

So silicon carbide becomes a very critical material to be able to provide the technology and capability to help reduce some of that and yet the investments that are being made in silicon carbide will not be able to be done with the pricing that's currently available. Thank you.

U.S. SMALL BUSINESS ADMINISTRATION: Your summary of testimony indicates that Pallidus was forced to abandon a $650-million dollar expansion plan due to the more than 50 percent reduction in market prices amid capacity expansion driven by the unfair trade practices from the PRC. Can you please further explain the

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knock-on effects to your business from intense PRC pricing pressure?

MR. CLEMMER: Sure. We had a plan to expand today. We have a facility in Albany, New York that work on the development of that. We had a plan to do a production facility with a $650 million dollar investment but that was based on the market pricing in the silicon carbide market, which was about a thousand dollars away for it at the time and has now since come down to $400 or less per wafer.

Basically below the variable cost of producing the wafer associated with it, so we chose to abandon the investment associated with that site and really focus our technology and develop on the next generation of technology which will give the ability to establish a leadership for U.S. industry that will be able to defend it against the technology being developed by China.

U.S. SMALL BUSINESS ADMINISTRATION: Thank you.

U.S. DEPARTMENT OF DEFENSE: In Silverado's public comments, you write that China's military-civil fusion strategy with mature node semiconductors would

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exploit the dual-use of semiconductors. Can you please elaborate on what you perceive to be potential risks to the United States?

MS. STEWART: Sure. Thank you. China has been pursuing a strategy that is focused on not just dominating the advance nodes which it can't yet. We've been preventing it, but in pursuing a strategy of dominating these foundational nodes, they go into dual-use items, and so we know, it's been well documented that China has a very blurred line between civil, military uses and so as they are putting, you know, more emphasis on all of the chips that are going into basically every item that you can imagine, whether it's a defense missile system or a smart phone or a satellite communication, they are creating an ability to dominate in a segment of the market that serves the dual use, serves the military and, you know, gives them a leg up on, you know, defense uses that we might have. And the ability to weaponize those against us.

MR. BUTLER: Thank you. I just want to check with my colleagues if anyone has any additional questions.

Okay. That concludes our final panel for the day. On behalf of this committee, I want to thank all the witnesses that appeared today. I want to thank USITC for hosting us. A reminder that post-hearing comments are due March 18th. And with that, we are adjourned.

(This Public Meeting concluded at 2:30 p.m.)

REPORTER'S CERTIFICATE

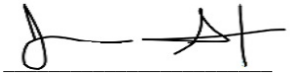
DISTRICT OF COLUMBIA

I, Jeaninn Y. Alexis, a Notary Public of the District of Columbia, do hereby certify that the with-named witness personally appeared before me at the time and place herein set out, and after having been duly sworn by me, according to law, was examined by counsel.

I further certify that the examination was recorded stenographically by me, and that this transcript is a true record of the proceedings.

I further certify that I am not of counsel to any of the parties, nor an employee of counsel, nor related to any of the parties nor in any way interested in the outcome of the action.

As witness my hand and seal this 13th day of March, 2025.



JEANINN ALEXIS

My Commission Expires: 1/14/2029

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