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ALERT

Commerce Department's Bureau of Industry and Security Request for Comments on Semiconductor Manufacturing and Advanced Packaging Supply Chains

March 16, 2021

On March 15, 2021, the Department of Commerce's (Commerce) Bureau of Industry and Security (BIS), Office of Technology Evaluation, issued a notice of request for public comments (notice) seeking information to assist it in preparing a report required by Executive Order 14017, "America's Supply Chains" (Executive Order), which institutes a formal, whole-of-government strategy to develop more resilient and secure supply chains across the United States and calls for a comprehensive review of domestic production, research and development (R&D) capabilities, and the formulation of strategies to strengthen critical sectors. As Wiley explained in a previous alert, the Executive Order directs various federal agencies to, within 100 days, submit a report to the President identifying the risks in the semiconductor manufacturing and advanced packaging supply chains, as well policy recommendations to address these risks. The deadline for comments in response to this notice is **April 5, 2021**.

The report that Commerce ultimately produces in response to the Executive Order has the potential to broadly impact the semiconductor and microelectronics industries. As such, we have provided BIS's non-exhaustive list of the issues for which it is most interested in hearing comments below:

1. Critical and essential goods and materials underlying the semiconductor manufacturing and advanced packaging supply chain;

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2. Manufacturing and other capabilities necessary to produce semiconductors, including electronic design automation software and advanced integrated circuit packaging techniques and capabilities;
3. (The availability of the key skill sets and personnel necessary to sustain a competitive U.S. semiconductor ecosystem, including the domestic education and manufacturing workforce skills needed for semiconductor manufacturing; the skills gaps therein, and any opportunities to meet future workforce needs;
4. Risks or contingencies that may disrupt the semiconductor supply chain (including defense, intelligence, cyber, homeland security, health, climate, environmental, natural, market, economic, geopolitical, human-rights or forced labor risks):
    1. Risks posed by reliance on digital products that may be vulnerable to failures or exploitation;
    2. Risks resulting from lack of or failure to develop domestic manufacturing capabilities, including emerging capabilities;
5. The resilience and capacity of the semiconductor supply chain to support national and economic security and emergency preparedness, including:
    1. Manufacturing or other needed capacities (including ability to modernize to meet future needs);
    2. Gaps in manufacturing capabilities, including nonexistent, threatened, or single-point-of-failure capabilities, or single or dual suppliers;
    3. Location of key manufacturing and production assets, and risks posed by these assets' physical location;
    4. Exclusive or dominant supply of critical or essential goods and materials by or through nations that are, or may become, unfriendly or unstable;
    5. Availability of substitutes or alternative sources for critical or essential goods and materials;
    6. Need for research and development capacity to sustain leadership in the development of goods and materials critical or essential to semiconductor manufacturing;
    7. Current domestic education and manufacturing workforce skills and any identified gaps, opportunities and potential best practices;
    8. Role of transportation systems in supporting the semiconductor supply chain and risks associated with these transportation systems;
    9. Risks posed by climate change to the availability, production, or transportation of goods and materials critical to semiconductor manufacturing.
6. Potential impact of the failure to sustain or develop elements of the semiconductor supply chain in the United States on other key downstream capabilities, including but not limited to food resources, energy grids, public utilities, information communications technology (ICT), aerospace applications, artificial intelligence applications, 5G infrastructure, quantum computing, supercomputer development, and election security. Also, the potential impact of purchases of semi-conductor finished products by downstream customers, including volume and price, product generation and alternate inputs;

7. Policy recommendations or suggested executive, legislative, regulatory changes, or actions to ensure a resilient supply chain for semiconductors (e.g., reshoring, nearshoring, or developing domestic suppliers, cooperation with allies to identify or develop alternative supply chains, building redundancy into supply chains, ways to address risks due to vulnerabilities in digital products or climate change);
8. Any additional comments relevant to the assessment of the semiconductor manufacturing and advanced packing supply chains required by the Executive Order.

Once Commerce completes this report, it will then assess whether additional information will be required to satisfy Section 9904 of the National Defense Authorization Act of 2021's mandate that the agency similarly produce a report for Congress which (1) assesses the capabilities of the U.S. microelectronics industrial base to support the national defense, in light of the global nature and interdependence of the supply chain with respect to manufacture, design, and end use; and (2) lists critical technology areas impacted by potential disruptions in the production of microelectronics and assesses gaps and vulnerabilities in the microelectronics supply chain.

The report that Commerce will produce has the potential to impact all segments of the semiconductor manufacturing and R&D supply chain. Industry stakeholders should consider leveraging this opportunity to advise the agency of supply chain constraints and recommend policy actions to enhance their competitive positions both domestically and globally. Policy recommendations should entail all relevant areas of economic competition, including global trade restrictions, economic distortions (e.g., subsidies, overcapacity), market access barriers, intellectual property enforcement issues, and export controls. Comments should also focus on trends and advancements in semiconductor technology, economic competition in fabless manufacturing, and comparative advantages in semiconductor fabrication capabilities, processes, and costs.

For more information about this notice or for assistance in drafting comments in response to it, please contact one of the attorneys listed on the alert. Wiley has a robust Supply Chain practice, as well as unparalleled experience and expertise in International Trade, National Security, Government Contracts, Telecom, Media & Technology, and Trade Analytics, and can help clients navigate evolving developments in this area.