Potomac Institute for Policy Studies
Science for Policy, Policy for Science

U.S. Industrial Policy: Then and Now

A Roundtable Summary

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About the Potomac Institute for Policy Studies

The Potomac Institute for Policy Studies is an independent, non-partisan, 501(c)(3), non-profit science and technology policy research institute. The Institute identifies and leads discussions on key science and technology issues facing our society. From these discussions and forums, we develop meaningful policy recommendations and enable their implementation at the intersection of business and government.

About the Global Competition Project

The Potomac Institute for Policy Studies regularly engages with a spectrum of experts to elevate insights on the primary challenges and opportunities associated with science and technology policy and national security. The Institute's Global Competition Project (GCP), focused on societal level competition, develops foundational references for national security professionals, policymakers, industry leaders, and others while driving awareness in how the U.S. might address the most consequential aspects of the globally competitive environment. The Project has delivered on that goal through its research, publications, panels, and continuous dialogue, all through the lens of the Institute's mission intersecting science and technology, business, and government.

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INTRODUCTION

With the return of great power competition, many nations have turned to subsidies to spur industrial development for geostrategic ends. Many of the industries receiving subsidies—such as semiconductors, pharmaceuticals, rare earths and other minerals, electric batteries, and the photovoltaic and solar energy industries—are critical for national security. The release of the United States' first ever National Defense Industrial Strategy in 2023 signals the increasing role of government activism in maintaining economic and geopolitical competitiveness.[1]

Recent developments in the semiconductor industry highlight the impact of foreign subsidies on the United States. In the 1980s, the U.S. produced approximately 40 percent of the market it had pioneered. Today, the market has shifted to Asia thanks in large part to government subsidies instituted by South Korea, China, Taiwan, and Japan. China and Korea currently subsidize their industries at approximately 40 percent each, while Japan and Taiwan subsidize at roughly 30 percent.[2] Concomitantly, U.S. market share has dropped to 12 percent—not nearly enough to meet American domestic or strategic needs. While American economic success has traditionally relied on the free market, U.S. companies will struggle to keep pace with foreign competitors receiving sizeable subsidies. The passage of the "Chips Act" in 2022 to infuse $52B worth of federal funds into the semiconductor industry represented a clear pivot by the U.S. toward a more aggressive industrial policy aimed at retaining competitiveness.

On June 13, 2024, the Potomac Institute for Policy Studies hosted a discussion to explore the evolution and future of U.S. industrial policy. The event, entitled "Industrial Policy: Now and Then", convened a spectrum of experts with government, industrial, and academic experience to elevate insights on the primary challenges and opportunities associated with industrial policy and its implementation and to establish a foundation for further action. Panelists included:

- Dr. Benjamin Bishop, Deputy Direct for Transition in the Adaptive Capacities Office in the Defense Advanced Research Projects Agency;
- Mackenzie Eaglen, Senior Fellow at the American Enterprise Institute;
- Dr. Christine Michienzi, Board and Strategic Advisor and Supply Chain and Technology Expert at MMR Defense Solutions LLC;
- Stacie Pettyjohn, Senior Fellow and Director of the Defense Program at the Center for New American Security; and
- The Honorable Al Shaffer, Member of the Board of Regents at the Potomac Institute for Policy Studies.

[1] United States Department of Defense. (2023). *National Defense Industrial Strategy*. https://www.businessdefense.gov/docs/ndis/2023-NDIS.pdf.

[2] Semiconductor Industry Association. (2023). *2023 State of the U.S. Semiconductor Industry*. https://www.semiconductors.org/wp-content/uploads/2023/07/SIA_State-of-Industry-Report_2023_Final_072723.pdf.

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THE POST-COLD WAR INDUSTRIAL LANDSCAPE

Today's U.S. industrial policy faces a far different environment than that of the Cold War era. During the discussion, the panelists coalesced around three dramatic changes to the defense industrial base that characterize and shape the contemporary landscape.

First, the post-Cold War **globalization of trade has created immensely complex and convoluted supply chains**. Industrial policy was *de facto* built on assumptions that economic interdependence would produce good foreign relations and reliable, strong supply chains. Those assumptions proved to be well-founded in some respects, contributing significant improvements in the standard of living across the globe.[3] However, the rise of China and its increasingly aggressive use of economic levers and grey zone tactics to influence and coerce its trading partners have threatened the integrity and security of U.S. (and global) supply chains reliant on Chinese goods and services.

Second, a series of post-Cold War **mergers and acquisitions in the defense industrial base have drastically reduced the number of prime government contractors**. Consolidation throughout the 1990s saw 51 companies turn into only five primes—Boeing, General Dynamics, Lockheed Martin, Northrup Grumman, and Raytheon.[4] As a result, government options to fulfill unique military needs are constricted and at times further limited by access to critical or exquisite goods only available through a sole supplier—a clear national security vulnerability.

Finally, **government is no longer the driver for major research and development (R&D)**. Instead, the private sector has become the main vehicle for investment in R&D. While there remain areas of excellence driving R&D within the U.S. Government—such as the Defense Advanced Research Projects Agency (DARPA), the national labs, and the Defense Innovation Unit (DIU)—the majority of R&D investments come from the commercial sector. This means there must be a compelling business case for the private sector to invest in R&D. As a result, companies tend to take a more conservative approach to R&D than their government counterparts

PURSUING A MODERN INDUSTRIAL POLICY APPROACH

The roundtable participants proposed three major opportunities for the U.S. to pursue a more effective activist industrial policy in the modern era:

The Department of Defense (DOD) must improve demand signals to the market given the strategic and industrial landscapes. For decades, the DOD has signaled high demand to industry but has failed to adequately allocate funds to match its needs. Congress is complicit however, exacerbating DOD's mixed signals with the deleterious effects of funding by continuing resolution—the contemporary rule rather than the exception.[5] This has led to a hollowing out of capacity across

[3] Roser, M. (2016, December 14). The Short History of Global Living Conditions and Why It Matters That We Know It. *Our World in Data*. https://ourworldindata.org/a-history-of-global-living-conditions.

[4] Amara, J., & Franck, R. (2020). The United States and Its Defense Industries. In K. Hartley & J. Belin (Eds.), *The Economics of the Global Defence Industry* (pp. 7–34). Routledge, pp. 9–13.

[5] Saturno, J. V., Lynch, M. S., Heniff Jr., B., Aherne, D. C., & Murray, J. (2023). *Continuing Resolutions: Overview of Components and Practices*. Congressional Research Service. https://crsreports.congress.gov/product/pdf/R/R46595.

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the defense industrial base (DIB), forcing contractors to operate more conservatively in competing for contracts and meeting DOD needs. Large amounts of capital from the DOD are required to arrest and reverse declining industrial capacity, particularly as the Department frames its requirements around China as a pacing threat.

At the same time, the Department of Defense can no longer move markets like it did during the Cold War. In addition to injecting capital into the defense industrial base, the DOD needs to look to existing market solutions to help achieve desired end states. Too often the Department overprescribes demands for design, leading companies to focus on exquisite product requirements at the expense of delivering capabilities sufficient to meet operational needs.

Market risk incentive structures require change to spur innovation and produce faster design cycles. Defense contractors maintain slim financial margins compared to commercial counterparts and operate largely according to a culture of compliance to DOD legal requirements. This capital devoted to legal compliance could be better spent on production or design capacity to more effectively answer defense needs. As a result, companies require a robust business case to invest in R&D, particularly for higher risk technologies. Direct government investment into higher risk technologies is needed but will not address the endemic culture of compliance across the defense industrial base.

Regulatory arbitrage remains a key hurdle, and the costs of compliance prevent new companies from entering the defense industrial base. Those companies that have entered the DIB have overly invested their own capital to make working with the DOD feasible. The DOD must reshape the risks of corporate investment to incentivize "creative compliance"—affording companies the latitude to innovate. For instance, the DOD can emphasize the importance of schedule over cost and performance in its acquisitions to induce contractors to accept some degree of risk to reduce design cycles and get products out the door faster.

Supply chain reform is also crucial and requires a positive vision for working with allies and partners. The United States must identify critical technologies reliant on global supply chains, understand country-specific dependencies, and assess vulnerabilities to disruptions by foreign actors. The COVID-19 pandemic exposed the perils of supply chain dependencies vis-à-vis China and added momentum to decoupling certain supply chains. However, reactionary responses must be met with a positive vision for leveraging the benefits allies and partners can offer. The globalization of supply chains and reductions in DOD spending mean that the U.S. no longer possesses domestic capacity—including the workforce—to deliver adequate capabilities on time. The Australia-United Kingdom-United States (AUKUS) security cooperation agreement represents a promising step forward but must be part of a broader vision to build and leverage friendly relationships with international partners.

CONCLUSION

In and out of vogue throughout U.S. history, industrial base policy has reemerged as an option to balance pursuit of prosperity and security in the global competitive environment. Other nations have effectively used large government investments in sectors like shipbuilding, semiconductors, pharmaceuticals and rare earth minerals to dominate global supply chains in those sectors. The CHIPS and Science Act and the DoD's Defense Industrial Strategy are just two recent examples

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where the United States has adopted a more aggressive industrial policy. Momentum for a more assertive industrial policy is growing. However, modern industrial policy will look different than what worked for the U.S. in the past, and America must remain loyal to long-held values like free trade while still designating winners and losers in the marketplace.

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