

Export Controls: Balancing the Tensions Between U.S. and Indian Priorities

Konark Bhandari, *Fellow, Technology and Security Program, Carnegie India*

This memo is a part of CFR expert Manjari Chatterjee Miller's [project on India and the liberal international order](#) published by CFR's [China Strategy Initiative](#) through its China 360° program.

India's export control regime both conforms to and diverges from the norms promoted by international institutions and the standards on export controls as articulated primarily by the United States. On one hand, India has signed three of the four major international export control regimes: the Wassenaar Arrangement, the Australia Group, and the Missile Technology Control Regime (MTCR). India also regulates its exports under its own Special Chemicals, Organism, Material, Equipment, and Technologies (SCOMET) list—which contains dual-use items, munitions, and nuclear-related items, including software and technology—and it maintains this list in compliance with those regimes. Those export control regimes have their benefits: broader international cooperation and buy-in on export controls, a multilateral process thereby allowing for more transparency, and accordingly, more credibility. On the other, India has to weigh the cost of conforming with them: dealing with increasingly unilateral U.S. export control measures imposed both through those international regimes, as well as, increasingly, outside of them.

India's approach to export controls is increasingly consistent with three norms that it prioritizes when engaging with the liberal international order. First, while India's export controls are currently based on multilateral regimes, it may now seek to incorporate elements in its domestic export control laws from other sources. This is somewhat halfway when it comes to adopting an approach between multilateralism on one hand and bilateral engagements on the other. For example, in trade, India eschews large trade blocs, instead favoring free trade agreements with select nations. Second, India emphasizes its strategic autonomy in international actions. This approach entails a degree of fence-sitting: it is a member of U.S.-led initiatives such as the Quad (the informal security arrangement that also includes Australia and Japan) but it is also a member of the Shanghai Cooperation Organization, which include Russia and China, and the BRICS (whose membership has grown from Brazil, Russia, India, China, and South Africa to also include Egypt, Ethiopia, Iran, and the United Arab Emirates). Finally, India hugely prioritizes its domestic needs, particularly with regard to development: even though it has committed to net-zero targets by 2070, it defends coal as necessary for development.

Those tensions are particularly important to examine because India's defense exports are increasing as it seeks to reduce its reliance on defense imports and emphasize domestic manufacturing.

Balancing Normative Interests and Compliance

India has displayed a commitment to international export control regimes, joining three out of the four major ones: the Wassenaar Arrangement, which regulates the process of transfer of conventional dual-use arms and technologies; the Australia Group, which sets out the guidelines for the export of chemical and biological weapons; and the MTCR, which governs the norms that seek to prevent missile proliferation. And it has applied to join the fourth, the Nuclear Suppliers Group (NSG), which sets out guidelines for nuclear and nuclear-related exports.

India maintains that its export regulator, SCOMET, is “in consonance with the relevant control lists, guidelines and provisions of the international conventions, mechanisms and regime.”¹ And indeed, India’s primary export control regime is aligned with regimes such as the MTCR and Wassenaar Arrangement’s Munition List.²

But there is tension between the set of norms that guide the U.S. approach versus that of India. All four international export control regimes relate to commodities, software, and technologies that are to be regulated in a country-agnostic manner. But in recent years, the United States has pushed norms that seek to keep access to technologies within certain countries. AUKUS (the trilateral security agreement among Australia, the United States, and the United Kingdom); the Global Export Controls Coalition (GECC), the thirty-nine country U.S.-led coalition aimed at denying access to Russia of certain military items; and the semiconductor-focused export controls accords struck between the United States, Japan, and the Netherlands are examples of this attitude.³ In short, although the existing international regimes are primarily undergirded by nonproliferation norms for obvious reasons of national security, U.S. export controls seem to be increasingly influenced by other factors such as human rights concerns, a desire to keep U.S. technology a generation or two ahead of geopolitical rivals, which creates resilient supply chains, and concerns about China’s military-civil fusion program.

This emphasis on U.S. primacy sits uncomfortably with India’s own imperatives of bilateral engagement, strategic autonomy, and domestic development.

India’s Imperatives and Cost-Benefit Analysis on Export Controls

For India, the costs to acceding to U.S.-led unilateral norms on export controls include losing access to large, sanctioned markets such as Iran and Russia. And the benefits (if they can be called that) include sparing Indian companies from secondary sanctions—that is, sanctions imposed by the United States on third parties that engage with entities or countries subject to its primary sanctions. Despite increasing discussion between Indian, U.S., and European Union officials on sensitizing India not to export certain items to Russia, India has mostly continued compliance with international regimes.

However, India cannot be faulted for not following U.S. export controls measures in certain cases, such as the GECC. First, it signed on to international export control regimes because they do not target any specific country and are therefore in keeping with India’s long-held commitment to strategic autonomy. Second, the United States itself is still developing its national security objectives,

and has adopted an iterative, escalating approach to export controls. In April 2023, U.S. National Security Adviser Jake Sullivan advocated a “small-yard, high-fence” originally aimed at a “narrow slice of technology.” However, that mandate has grown steadily, including a host of actions such as export controls against China, and advanced computing controls unveiled in October 2023. Accordingly, India prefers the international regimes it is party to, both in terms of the technologies regulated and the underlying philosophy for regulating them (which also guides SCOMET).

Reducing reliance on foreign imports as a part of its Aatmanirbhar Bharat (“Self-reliant India”) policy has also become particularly important. Although India remains the largest defense importer in the world, its arms imports from Russia reportedly shrunk from 76 percent from 2009 to 2013 to 36 percent from 2019 to 2023.

Rising Defense Exports

India’s efforts to regulate exports through SCOMET, especially high-tech exports, can be viewed through three trends in its defense and deep-technology domestic ecosystem. First, India today has record-breaking defense exports of approximately \$2.4 billion.⁴ Those exports, sustained by the Indian government through industrial policies such as the Make-in-India scheme and other domestic initiatives, have ensured that India’s defense production has grown at a very high pace, even though India remains the world’s largest arms importer.⁵

Second, India has introduced a spate of industrial policies and deep-tech policies over the last few years—focusing on semiconductors, space-tech, drones, robotics, and defense production, to name a few—which has created homegrown capabilities that were previously nonexistent. For example, India set up an iDEX scheme (Innovations in Defence Excellence) in 2018, which provides grants of up to 1.5 crore India rupee (INR), about \$176,000, for developing innovative technologies. The scheme has recently been further allocated 449.62 crore INR (roughly \$52.6 million in U.S. dollars). iDEX has incubated well over a hundred start-ups since 2018.⁶ India has also introduced a new incentive scheme for semiconductors in December 2021 with a financial package of approximately \$10 billion.⁷ This domestic boom can also be seen in record patent filings, although full-scale commercialization remains an issue.⁸

Third, India has increasingly struck a raft of international technology partnerships focused on the domain of emerging and strategic technologies. It has increasingly engaged in tech diplomacy to enter into tech-heavy partnerships, such as the U.K.-India TSI, the EU-India TTC, and iCET (now called TRUST), IMEC, I2U2, the Quad, and INDUS-X. Those technology partnerships have been accompanied by a gradual loosening of export control rules toward India as well, and have led to enhanced technology transfers to India.

Those trends mean that India may now need to streamline the SCOMET list. Although this does not necessarily mean that exports of electronic items bearing the prohibited HS codes (as stipulated by the United States through its domestic export control laws) would fall through the cracks, it does mean that the job for India’s customs authorities could increase a fair bit.

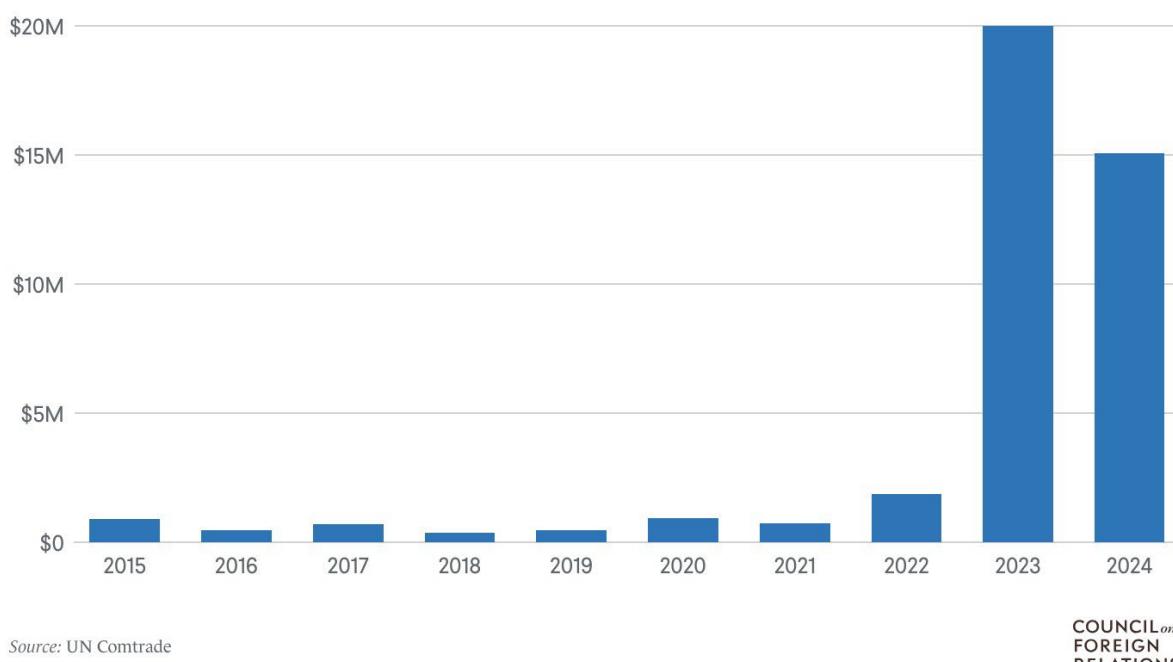
Export Control Issues and Strengthening SCOMET

The rise in Indian defense exports has global implications, as India is not only exporting to Russia but to other countries as well. For example, Indian artillery shells have allegedly been used by Ukraine and by Israel in Gaza.⁹ Some of this can be attributed to covert trade channels built within India to ensure a steady supply of arms to Russian entities involved in the war in Ukraine.¹⁰ Russian consortiums have also tried to set up facilities to manufacture electronic items in India and subsequently export them to Russia, as the inputs and components needed to make electronics items would not be available to Russian entities in Russia itself. At the same time, Indian defense firms' pivot to Russia could also be driven by profiteering given high markups due to the war in Ukraine.¹¹

India's Make-in-India and Production-Linked-Incentive schemes to boost domestic manufacturing mean that India not only produces more locally but also imports more from China due to assembly operations. Specifically, demand is high for Chinese computer numerical control (CNC) machine tools used to shape and form metal for use in defense production, especially for weaponry. Further, in addition to importing them, recent reporting suggests that India could have begun exporting such CNC machine tools, and data from India's Ministry of Commerce shows a staggering 50,088 percent growth in exports to Russia from 2022–23 to 2023–24.¹²

Figure 1. India's Exports of Machining Centers to Russia Have Risen

Machining centers exported from India to Russia



But this is not entirely clear cut. Although a RUSI report tracking Russia's artillery supply chains found that CNC machine tools are now increasingly coming directly from China, it also stated that the supply of such CNC machine tools to "Russian defence plants is not straightforward, because Western states are critical suppliers of hardware that is essential for their production and use."¹³ Therefore, it is possible that India is being used in transshipment routes and is not the original source

of CNC machine tools sent to Russia. This idea is further explored in a KSE Institute report that highlights India as one of the main countries acting as a physical dispatcher of prohibited items, but at the same time, not being a main seller of such items.¹⁴

All of this means that more needs to be done to reform export controls vis-à-vis India. For example, Indian customs authorities have a more expansive and complicated job than before. This does not necessarily imply that prohibited exports of electronic items will fall through the cracks, but it does mean that a more heightened level of scrutiny will be necessary going forward. That is, SCOMET could have to do to monitor tech leaving India even if there is no evidence that India is compromising the international export control regimes that guide SCOMET. There are two options for amending and strengthening India's export control rules, one of which is already in the process of implementation.

Voluntary Disclosure Scheme

In 2024, the Indian Directorate General of Foreign Trade came out with a scheme on voluntary disclosure, which mentions that it will also look at the “export of items not controlled under SCOMET,” although it is focused on items related to the manufacture of weapons of mass destruction or their delivery systems. This scheme requires applicants to come forward and report noncompliance when it comes to exporting items not regulated by SCOMET as well, with the possibility that such disclosure will be treated as a mitigating factor if resulting in any penalties.

Changing SCOMET

Aligning SCOMET with U.S. laws is harder to imagine. From stakeholder feedback, the Indian government sees the recent sanctioning of Indian firms by the United States as not being in sync with multilateral export control laws. The Indian government also views Indian firms as innocent of breaking any domestic or multilateral laws. The notion that Indian customs authorities were unable to monitor such exports to Russia was dismissed by a few stakeholders; they felt that Indian customs authorities do not lack the infrastructure to monitor such shipments. Instead, Indian firms are unaware that they do not comply with U.S. laws, as they do not have knowledge of them. In addition to spreading awareness, contractual solutions can be imposed that bind parties to liability in case of shipments to Russia; those would not require an amendment to SCOMET rules. That said, Indian customs authorities are reportedly trying to link eight-digit HS Codes with SCOMET to streamline with internationally accepted systems.

Export Controls and the U.S.-India Partnership

The United States is India's largest trading partner and source for tech transfers, but export controls are hampering the bilateral tech trade. Data from the U.S. Bureau of Industry and Security (BIS), which manages export controls for high-tech, strategic, and dual-use technologies, currently shows trade with India being less than \$200 million under a BIS license every year, with trade under a BIS license exception being less than half of \$500 million each year. Overall export license applications worth \$1.2 billion were reviewed by BIS for India, which is not overwhelmingly large. This means that either most high-tech exports to India do not require a license from BIS, or, more likely, trade

in high-tech exports is muted and underwhelming because export control laws make it difficult for U.S. companies to consider applying in the first place. That is, the figures on high-tech trade are low because many applicants do not wish to apply for an export license, as the export of the item to India may not be approved.

Below is some data from BIS on tech transfer to India.

Figure 2. Top Exports to India by Value

Where license is required

Rank	ECCN	Description
1	9A610	Military aircraft
2	9A515	Spacecraft
3	3A611	Military electronics
4	3A001	Electronic items
5	9A619	Military gas turbine engines
6	1C202	Alloys
7	5A002	Information security systems
8	7B611	Test and production commodities for military electronics
9	2B201	Machine tools with contouring control
10	7A103	Instrumentation and navigation equipment

Under Bureau of Industry and Security exceptions

Rank	ECCN	Description
1	5A002	Information security systems
2	9A610	Military aircraft
3	9A619	Military gas turbine engines
4	9A515	Spacecraft
5	3A611	Military electronics
6	7A103	Instrumentation and navigation equipment
7	EAR99	Other items subject to the EAR
8	5B002	Information security test and production equipment
9	9B610	Test and production equipment
10	2B001	Machine tools with numerical control

Note: Descriptions are abbreviated.

Source: Bureau of Industry and Security

COUNCIL on
FOREIGN
RELATIONS

Conclusion

The U.S. and Indian governments recognize that their diverging export control regimes are an issue, as evidenced by the establishment of the earlier Hi-Tech Cooperation Group and the new Strategic Trade Dialogue. Both of those mechanisms were set up to ease export control restrictions, but there is a lack of clarity regarding how the Strategic Trade Dialogue will be utilized as a mechanism to resolve any differences regarding their respective export control regimes. Perhaps a detailed study to gauge the progress made under the Strategic Trade Dialogue is warranted under such circumstances.

In addition, the Trump administration's larger focus on bilateral trade issues means that for future U.S. tech investments into India to be realized, market access issues would need to be worked out prior to further cooperation on tech transfer or even on the larger issue of aligning export controls or liberalizing U.S. export controls with respect to India. With the withdrawal and rescinding of the AI Diffusion Framework issued by the Biden administration, along with the recent deals inked by the Trump administration on the supply of AI hardware to certain Middle Eastern nations, the Trump administration appears to have taken a transactional approach to export controls, content with receiving commitments of massive pools of investments from those Gulf nations in return. With its region-centric approach to export controls, it appears likely that the U.S. approach to export controls will be out of step with the four larger multilateral regimes.

Endnotes

¹ *Handbook on India's Strategic Trade Control System*, Directorate General of Foreign Trade, Ministry of Commerce and Industry, Government of India, January 2024, <https://www.mea.gov.in/Images/CPV/HandbookIndiaSTCSystem.pdf>.

² Amiti Sen, "U.S. Sensitises Indian Firms on Items Not to Be Exported to Russia," *The Hindu*, August 19, 2024, <https://www.thehindubusinessline.com/economy/us-sensitises-indian-firms-on-items-not-to-be-exported-to-russia/article68543259.ece>; Rezaul Laskar, "EU Informs India on Firms Breaking Sanctions Through Dealings With Russian Firms," *Hindustan Times*, December 11, 2024, <https://www.hindustantimes.com/india-news/eu-warns-india-on-entities-violating-sanctionsthrough-dealings-with-russian-firms-101733901671213.html>.

³ Alexandra Alper and David Shepardson, "U.S. Official Acknowledges Japan, Netherlands Deal to Curb Chipmaking Exports to China," *Reuters*, January 31, 2023, <https://www.reuters.com/technology/us-official-acknowledges-japan-netherlands-deal-curb-chipmaking-exports-china-2023-02-01>.

⁴ Santosh Kumar, Sarla Meena, and Saurabh Kalia, "Make in India Powers Defence Growth: Production Hit 1.27 Lakh Crore in FY 2023–24, Exports Cross 21,000 Crore," Ministry of Defence, Government of India, March 24, 2025, <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2114546>.

⁵ Perter Wezeman et. al., "Trends in International Arms Transfers, 2023," SIPRI, March 2024, https://www.sipri.org/sites/default/files/2024-03/fs_2403_at_2023.pdf.

⁶ *iDEX - A Runway for Innovations*, Government of India Ministry of Defence, Department of Defence Production, February 6, 2025, https://www.aeroindia.gov.in/assets/front/coffee_table_book.pdf.

⁷ "Cabinet approves Programme for Development of Semiconductors and Display Manufacturing Ecosystem in India," Government of India Press Information Bureau, December 15, 2021, <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1781723>.

⁸ Hardeep Puri, "India, Take a Deeptech Breath," *Economic Times*, November 24, 2024, <https://economictimes.indiatimes.com/opinion/et-commentary/india-take-a-deeptech-breath/articleshow/115574851.cms?from=mdr>. ⁹ Krishn Kaushik, "India-Made Ammunition Enters Ukraine, Irks Defence Partner Russia: Report," *Reuters*, September 19, 2024, <https://www.reuters.com/world/ammunition-india-enters-ukraine-raising-russian-ire-2024-09-19>; K.M. Seethi, "What Has India Risked by Exporting Arms to Israel?" *The Wire*, July 13, 2024, <https://thewire.in/security/india-arms-exports-israel>.

¹⁰ John Reed, Max Seddon, Chris Cook and John Paul Rathbone, "Russia Built Covert Trade Channel with India, Leaks Reveal," *Financial Times*, September 4, 2024, <https://www.ft.com/content/101afcd6-8e6f-4b5f-89b0-98f48cd5d119>.

¹¹ Alberto Nardelli, Ian King, and Andy Lin, "Russia's Military Found a Surprisingly Simple Way to Buy U.S. Chips," *Bloomberg*, December 9, 2024, <https://www.bloomberg.com/news/features/2024-12-09/russia-s-military-buying-us-chips-from-texasinstruments-despite-sanctions>.

¹² Merchandise Exports from India Database (MEIDB), System on India's Monthly Trade (Harmonised Classification of Commodities), Commodity-Wise Exports of CNC Machine Tools, Financial Year 2023–24.

¹³ Oleksii Borovikov et. al., *Ore to Ordnance: Disrupting Russia's Artillery Supply Chains*, RUSI, October 10, 2024, https://static.opensourcecentre.org/assets/osc_ore_to_ordnance.pdf.

¹⁴ Olena Bilousova et al., *Challenges of Export Controls Enforcement: How Russia Continues to Import Components for Its Military Production*, KSE Institute, January 2024, <https://kse.ua/wp-content/uploads/2024/01/Challenges-of-Export-Controls-Enforcement.pdf>.