

On the Construction of China's Export Control Legal Framework from the Perspective of Legislative Path

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Abstract. The landscape of global competition has shifted dramatically. Export controls are no longer just trade policies; they've become a central piece in the strategic chess game major powers play to protect their tech edge and national security. China has fast-tracked the modernization of its export control laws. This paper walks through that legislative journey—from the early days of scattered administrative rules to the unified framework scholars see with the 2020 Export Control Law. It takes a close look at the nuts and bolts of the current system: the control lists, the rules around deemed exports, how licensing works, and the reach of these laws beyond China's borders. What this study finds is a system grappling with some tough nuts to crack: control lists that are spread out and slow to update, a glaring absence of clearly deemed export rules, and enforcement that doesn't always have the bite it needs. By looking at how controls play out in practice—with rare earths, high-performance drones, and nuclear materials—this paper suggests a path forward. That includes creating a single, unified list with clear codes, spelling out what counts as a deemed export, streamlining the licensing process, and refining how China hits back when other countries discriminate. The goal is to offer some grounded, forward-looking ideas for strengthening China's legal toolkit.

Keywords: Export control law, dual-use items, deemed export, legislative evolution, extraterritorial application.

1. Introduction

People living through a major reshuffle of global competitive order. Export controls have shot to the top of the agenda for big powers looking to safeguard their tech advantages and national security. In recent years, the U.S. hasn't let up in its campaign to control exports to China, leaning heavily on mechanisms like the Entity List and the deemed export rule. The scope, the intensity, and the way it's roping in allies—it's all dialed up, and it's a direct hit on China's ability to innovate and keep its industries secure [1]. Just look at the flurry of activity from the U.S. Department of Commerce's Bureau of Industry and Security (BIS) since early 2024. They've rolled out new rule after new rule aimed squarely at China's semiconductor and Artificial Intelligence (AI) sectors, slapped 136 Chinese entities onto the Entity List, put the brakes on exports of two dozen types of chipmaking gear and three kinds of software, and clamped down hard on the high-bandwidth memory China needs for its AI chips [2]. Taken together, these moves signal a new phase in the U.S. tech containment strategy and have, in turn, lit a fire under China to get its own house in order, legally speaking.

Facing this external squeeze and needing to firm up its own footing, China has moved quickly to modernize its export control laws. The cornerstone of this effort is the basic export control law, which got the green light from the 22nd session of the 13th National People's Congress Standing Committee on October 17, 2020, and came into force that December 1st. This was the first time China had a single, overarching law covering this whole area [3]. The legislative process itself tells a story. After a draft for comments came out in 2017, the bill went through first, second, and third reviews in 2019 and 2020. Zooming from the first reading to final passage in under ten months shows just how much of a priority this was for lawmakers. The law is built on the foundation of a "holistic approach to national security," and it's clear that security concerns get the final say. People can also see in it a push for more modern governance—ideas like transforming what government does and spreading responsibility around [4].

On the heels of that came the Regulation on the Export Control of Dual-Use Items, which took effect on December 1, 2024. This regulation fills in a lot of details on how to actually control dual-use goods. Piece by piece, it's fitting together with other specialized lists and departmental rules—like the Nuclear Export Control List and the Chemical Export Control Measures—to form a more complete, layered legal framework [5]. Let's be clear: this isn't about copying the U.S. model of long-arm jurisdiction. It's a defensive, proactive move, rooted in that holistic security view, and it tries to find a workable balance between pushing for development and locking down security. If people trace the legislative path over the last seventy-plus years, people can spot three distinct chapters. From 1949 up to the 1990s, control was scattered and piecemeal, handled mostly through administrative orders and departmental rules. Then, from the '90s until 2020, China built up special laws for specific areas—nuclear, biological, chemical, missile tech—creating separate control systems for each. The 2020 law and the 2024 regulation mark the start of a new chapter, one focused on pulling all these threads together into a coherent, modern system [6]. Early on, the main goal was simple: meet international commitments and stop proliferation risks. Later, the focus shifted to crafting dedicated laws that were more in sync with global norms. Now, the focus is on system-wide integration.

This paper leans on a mix of textual analysis and case studies to lay out the history of China's export control laws and to map out where improvements can be made.

2. Literature Review

The scholarship out there has built a solid base for digging into this topic, and researchers have come at it from a bunch of different angles. A lot of work uses a comparative lens, tracking how U.S. export control rules have morphed over time and trying to get a handle on the tools Washington uses against China and just how well they work. Han Shuang and others have traced the expansion of U.S. controls from key technologies into what are now called emerging and foundational technologies, and their work lays bare the trend toward more aggressive tech containment aimed at China [7, 8]. Ou Fuyong and his colleagues have taken a scalpel to the 2018 U.S. Export Control Reform Act, highlighting its long-arm jurisdictional features [9]. And Zheng Lingli, looking through the lens of WTO disputes, has discussed how the U.S. uses the "national security" banner to justify changes in its export control law and what China's countermoves could look like [10].

Another group of scholars dives into the text of China's own Export Control Law. They unpack its structure, its rules for reaching beyond China's borders, and what it all means for companies trying to stay compliant. Liu Ying, for instance, zeroes in on those extraterritorial application rules and suggests ways to tighten them up. Cai Kaiming compares the policy toolkits of China and the U.S., asking how China can build a control system that fits its own circumstances. And Shi Xiaoli, looking at how things work in the U.S., has analyzed the compliance headaches that deemed export rules create for Chinese universities [11].

Then there's research that gets its hands dirty with case studies and hard data, trying to see how export controls actually play out in the real world of trade and industrial innovation. Song Guoyou's empirical work shows pretty convincingly that under conditions of strategic rivalry, export controls put a serious damper on high-tech trade between the U.S. and China. Wang Yan has advice for companies that find themselves on sanctions lists. And Qi Kai makes a key observation: China's approach to export controls is starting to pivot from just reacting to problems to actively defending its interests.

Even with all this good work, there are still some pretty big holes. For one thing, a lot of the research either unpacks U.S. policy or takes a close look at a single Chinese law. What's missing is a broader, more systematic review of the whole legislative journey China has been on. Plus, the latest moves—like the 2024 Dual-Use Items Regulation—haven't really been folded into the analysis yet. Second, some of this work leans a bit too heavily on the idea of just copying what others do, and it doesn't always pay enough attention to China's own drive to modernize its governance or its legitimate defensive needs. There's also not enough focus on how all the specialized systems hang together or

how the different government agencies coordinate. Finally, there's a real weakness when it comes to connecting the rules on paper with how they're applied in practice.

3. Institutional Review of China's Export Control Legislation: Norms, Practices, and Problems

3.1. Normative Definition of Controlled Objects

Here's one of the first big snags: the system of control lists is all over the place. There's no unified coding system, and the technical lingo isn't standardized. People got control lists scattered across more than twenty different regulations. We're talking about the Nuclear Export Control List, the Military Items Export Control List, the Missile and Related Items Export Control List, the Biological Dual-Use Items list, the Chemical-Related Items list, the list of lists goes on. And the details are often fuzzy. The Chemical Export Control Measures, for example, don't spell out the technical parameters for certain chemicals with enough clarity. That makes it a real headache in practice to figure out if something is actually controlled or not. The lists also don't get updated very often, so they tend to lag behind fast-moving fields like AI and quantum tech. Because everything is so vague, companies end up burning time and money just asking the government for clarification, and some inevitably get tripped up and land in compliance trouble just because they guessed wrong.

Taking chemical controls. The fuzzy technical definitions are a recipe for enforcement problems. People might have a chemical that could go either way—civilian or military use—but without clear specs or performance benchmarks, an exporter is left scratching their head, wondering if they need a license. The 2024 Dual-Use Items Regulation does define "dual-use items" in its fine print, but the actual, detailed lists are still stashed away in different departmental rules. There's no master code system, no single set of technical standards. All that ambiguity jacks up costs for companies and, at the same time, hands a lot of discretionary power to the folks doing the enforcing. It's worth noting that in September 2024, the Ministry of Commerce did add six precursor chemicals—including potassium perchlorate and phosphoric acid—to the control list and even suspended exports of them to specific places like Myanmar, Laos, and Afghanistan. That move shows a dynamic update mechanism is starting to see the light of day, but we're still a long way from having a truly systematic and regular process in place.

3.2. Design of Control Mechanisms

Another big problem is that the laws on books are heavy on principles and light on specifics. The system still doesn't clearly define what makes something a "deemed export." It doesn't draw a clear line for situations where a foreign national working in China gets access to controlled technology, or when technology developed here gets shared with a foreign outfit. This creates a fog of unpredictability for universities, research centers, and high-tech companies trying to collaborate internationally. The 2020 law mentions deemed exports as a concept, but it never gets down to the brass tacks—like who exactly counts as a "foreign national" or what specific kinds of tech transfer trigger the rules. This is a huge exposure for universities and research institutes. A foreign researcher working on sensitive tech might stumble right over the line without even realizing it. And while the December 2024 Dual-Use Items Regulation touches on things like domestic transfers, reproduction, and re-export, the hard-and-fast criteria for identifying a deemed export are still missing in action.

Look at the development of high-performance drones. There are glaring gaps when it comes to regulating the exchange of technology. Drone tech pulls together a lot of sensitive areas—navigation, comms, sensors. Yet the current setup offers almost no clarity on where the boundaries are for a foreign researcher who needs to access that kind of knowledge. Plenty of universities don't even have a basic review process to check whether the work a newly hired foreign researcher will be doing touches on controlled technology. That just amplifies the risk of leaks. In July 2024, the Ministry of Commerce, along with the customs and military equipment authorities, put out a notice adjusting

drone export controls. They slapped temporary controls on some unmanned aerial vehicles and flat-out banned the export of any non-controlled civilian drones if they were destined for military use or terrorist activities. That adjustment shows they're paying more attention to the risk of drone tech spreading. But oversight of deemed exports in the university research context? That's still a big, empty space.

3.3. Building Extraterritorial Application Rules

When it comes to China's ability to push back, the rules for reciprocal countermeasures are still pretty vague. The law doesn't lay out clear criteria for what counts as a discriminatory control measure by another country, nor does it say who should kick off the process, how the decision gets made, or what kind of counter-punches are on the table. On top of that, the Unreliable Entity List and the main export control list aren't well coordinated. They have different targets, different restrictions, and different enforcement paths, which makes it tough to combine their power for a one-two punch. There's also the tricky question of getting the precision of any countermeasure just right. The law sets out the idea of reciprocity, sure, but the actual steps for starting and deciding on a countermeasure? Nobody's quite sure what they are. In May 2024, the Ministry of Commerce did put several U.S. companies tied to arms sales to Taiwan on the Unreliable Entity List. That barred them from any import or export business with China and restricted their executives from coming into the country. But we're still waiting for a formal system that links the Unreliable Entity List and the export control list together. There's a lot of room to get them on the same page in terms of who they target, what the penalties are, and how they're enforced.

The chip wars with the U.S. and how Japan has handled export controls show just how delicate this balance of extraterritorial reach can be. In the chip sector, the U.S. uses its long-arm jurisdiction to strong-arm companies in other countries from selling to China. China's response has to be carefully calibrated pushing back hard enough to matter, but without trampling all over the established rules of international trade. A case in point: in September 2024, China's Ministry of Commerce used the Export Control Law to launch an anti-circumvention probe into optical fiber preforms coming from the U.S. and Japan and then put anti-circumvention measures in place. The experience with Japan underscores that countermeasures need to be surgical. If they're too broad, they can throw a wrench into normal trade flows. The central challenge for China as it builds out the extraterritorial side of its export control system is figuring out how to square the circle: protecting national security without putting the brakes on legitimate international commerce.

4. Ways to Improve China's Export Control System

4.1. Making the Lists More Precise

The management of these lists has got to be unified. The Ministry of Commerce, the State Administration of Science, Technology and Industry for National Defense, and whoever else has a stake in this need to sit down and hammer out a single, national export control list. This list should use a consistent system of codes and technical parameters to define what's controlled, and it needs a clear, shared vocabulary and classification scheme. The 2024 Dual-Use Items Regulation was a step in the right direction—it mentioned that controlled items would get control codes, a bit like the system used under the Wassenaar Arrangement where each member country tags dual-use items with codes to manage and differentiate controls. What's needed now is a real dynamic update mechanism with two tracks. First, a regular, once-a-year review where the government, industry folks, and researchers sit down together to figure out what new tech should be added to the list. Second, an emergency track for when something pops up that poses an immediate security risk—maybe a tech is suddenly proliferating fast, or international rules have changed overnight. In October 2024, the Ministry of Commerce and Customs made an interesting move: some of their notices defined controlled items not just by name, but by clear technical specs and performance numbers in the annex. They started asking companies to declare right on the export form whether something was a dual-use item and, if

so, what its code was. That's a clear signal of a shift in thinking—away from just checking a list and toward managing controls based on verifiable, technical parameters.

4.2. Filling Gaps in the Rules

The rules around deemed exports need some serious clarification. The implementation details for the Dual-Use Items Regulation should spell it out plainly: if a foreign national on Chinese soil gets access to controlled tech, that's a deemed export. If people send controlled technical documents to a foreign party—whether it's a FedEx package or a file transfer—that's a deemed export, too. People also need a special channel for universities and research bodies. Before they bring a foreign researcher on board to work on sensitive tech, they should have to get a security review from the authorities, and everyone needs to be crystal clear on which core tech areas are simply off the table. Along with that, a filing system for tech exchanges would make sense. If a conference, a joint R&D project, or any other activity involves controlled technology, people file a notice beforehand. It might be wise to look at how Germany handles research security, where a security check is a prerequisite for getting research funding, and they have monitoring systems in place to track risks and spot problems. There's also something to be learned from Japan's approach, which distinguishes between residents and non-residents for the purpose of accessing controlled technology.

4.3. Improving Countermeasures

The procedures for launching a countermeasure need to be much clearer. The Export Control Law should define exactly what triggers a response—for example, a foreign country slapping discriminatory controls on Chinese firms. The Ministry of Commerce should be the one to pull the trigger, though industry groups and companies should have a way to sound the alarm and ask for a review. The decision-making process ought to pull in the Foreign Ministry and the Ministry of National Defense, with the State Council giving the final nod. It's also crucial to sync this up with the Unreliable Entity List. A foreign company that lands on that list should automatically find its access to China's controlled items and technologies cut off. The May 2024 action against U.S. companies involved in arms sales to Taiwan—barring them from trade and restricting their executives—shows what this kind of coordinated approach can look like. The trick is to hit precisely and stay restrained. The goal isn't to slide into the same kind of long-arm overreach that the U.S. practices. It's to participate in global governance, but to do so on the basis of rules. In the chip sector, for example, where the U.S. uses its jurisdictional muscle to squeeze Chinese access, China has to find a sweet spot—pushing back firmly while still playing by the international rulebook as much as it can.

5. Conclusion

This paper has walked through the history of China's export control laws and broken it down into three main periods. From 1949 up to the 1990s, it was the early days of administrative control and bits-and-pieces legislation. The focus was mostly on nuclear and military stuff, and there was no single, overarching law. Then, from the 1990s to 2020, people saw a push to create more specialized laws and to get more in line with international practices. Regulations popped up in several fields, and a control system covering nuclear, bio, chem, and missile items started to take shape. The most recent period, from 2020 to now, is all about pulling everything together into a modern, unified system. The Export Control Law and the Dual-Use Items Regulation are the hallmarks here, and they both show a real effort to balance security needs with the push for development.

That said, the current setup is still far from perfect. The control lists are a fragmented mess: they're vague, and they don't get updated fast enough. We're missing clear rules on deemed exports, which is a huge and unnecessary risk. Getting a license can be slow and painful, and checking up on who's actually using the stuff on the other end is a real challenge. And the whole system for applying these rules beyond China's borders and for hitting back when others discriminate still needs a lot of work.

Looking ahead, the path forward involves a few key steps. Scholars need a single, unified control list with a real, working process for keeping it up to date. Scholars need to spell out what counts as a deemed export and put special compliance systems in place for universities and research centers. People should streamline the approval process and get tougher on verifying overseas end-users and cracking down on those who break the rules. And scholars have to carefully refine rules for extraterritorial reach and reciprocal countermeasures—making sure people don't end up just mimicking long-arm jurisdiction but instead stick to a rules-based approach to governance.

At the end of the day, export controls are a tightrope walk between keeping the country safe and letting the economy grow, between having strict rules and staying flexible. Getting this system right isn't just about protecting China's security and its technological independence. It matters for the future shape of global trade rules, too.

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