Arms Control and International Security Papers

Volume I | Number 16 August 19, 2020

Export Controls and National Security Strategy in the 21st Century

by Christopher A. Ford





The Arms Control and International Security Papers are produced by the Office of the Under Secretary of State for Arms Control and International Security in order to make U.S. State Department policy analysis available in an electronically-accessible format compatible with "social distancing" during the COVID-19 crisis.

Export Controls and National Security Strategy in the 21st Century

by Christopher A. Ford¹

This ACIS Paper reprints the full text that Assistant Secretary Ford prepared for his presentation to the Center for a New American Security on August 19, 2020, as a part of CNAS' new Project on Export Controls and National Security.

Good day, and thank you for the chance to talk to you about one of the more complex — and, I think, more interesting — challenges we face in the U.S. national security community today. Specifically, I'd like to say a few words about the arena of national security export controls, and about the importance of approaching them strategically, especially with regard to the challenges associated with advanced and emerging technology.

In some respects, U.S. export control policy is extraordinarily difficult to study, inasmuch as policymaking and implementation involves a convoluted labyrinth of statutes, regulations, authorities, and stakeholders, all of which can affect the various ways in which cross-border economic activity is constrained or otherwise regulated for national security reasons. Adding to this opacity for those trying to study it from the outside is the requirement for multi-disciplinary classified discussions of strategy that cross agency lines, resulting in myriad tactical deliberations that are rarely a matter of public record. Though it is not untrue, as the saying goes, that "economic security is national security," to keep this discussion from becoming entirely unwieldy, I will not be talking here about trade or economic policy per se, nor about other issues not directly related to national security in the more traditional sense. Nor will I have much to say here about technology promotion such as the ways in which we use sales of defense articles and targeted investment in critical areas to enhance the resilience and vigor of the U.S. Defense Industrial Base

and what the <u>2017 National Security Strategy</u> called our National Security Innovation Base — though these questions clearly implicate national security, too.

Even when one limits discussion to restraints upon commerce undertaken for specific national security reasons, however, it is still a daunting landscape — a sprawling corpus of rules and practices that has been built up over the decades in response to a great variety of challenges, concerns, and opportunities. Under these circumstances, it would be too much to expect thematic unity, simplicity, or a lack of duplication, and indeed it can take a great deal of experience to be able to follow the relevant cast of characters, authorities, and precedents. Nor is this task getting easier, for the Executive Branch and Congress frequently add new measures and authorities to the mix.

I. A Typology of Measures

To avoid getting bogged down in such complexities here, I thought I would try to break down national security export control measures into some very broad conceptual categories, before focusing upon where I think some of the most interesting intellectual and strategic work is being done today. One could parse things in different ways for different purposes, but I like to think of national security commerce constraints as falling into three very broad groups:

¹ Dr. Ford serves as U.S. Assistant Secretary of State for International Security and Nonproliferation, and is additionally performing the Duties of the Under Secretary for Arms Control and International Security. He previously served as Special Assistant to the President and Senior Director for Weapons of Mass Destruction and Counterproliferation on the U.S. National Security Council staff.

- 1) <u>Pressures</u>: Measures to inflict some cost or pain upon another country or entity in order to change its behavior in support of some national security or foreign policy objective;
- 2) <u>Impediments</u>: Measures to limit or shape the development of capabilities with which a country or entity could threaten our security; and
- 3) <u>Balances</u>: Measures to constrain our own ability to transfer funds, goods, or technology to others in pursuit of *some* policy objectives in ways that may be inconsistent with *other* policy objectives.

I'll briefly explain each of these in turn, before dwelling a bit more on the strategy that is increasingly a part of our approach to the second category, that of "impediments."

A. Pressures

The category I will call "pressures" covers some of the most traditional forms of economic pressure, including many sanctions and embargoes undertaken in order to advance policy goals. Here, for instance, one might find the limited sanctions temporarily placed by the League of Nations upon Italy for its invasion of Abyssinia in the 1930s, the petroleum embargo the United States placed upon Japan after its invasion of the countries of South East Asia in 1941, President Carter's embargo of agricultural exports to the USSR after the Soviet invasion of Afghanistan, U.S. sanctions imposed against the People's Republic of China (PRC) in response to the massacre of students and workers on Tiananmen Square in 1989, and the sanctions adopted by the United States and the European Union in response to Russia's invasion of Ukraine in 2014 — all of which were intended to punish, and to encourage the cessation of, lawless and barbarous behavior.

In this category, too, might fall economic pressures aimed less at changing behavior than at changing a foreign regime itself, such as the U.S. embargo on Cuba that began in 1960, United Nations sanctions on Ian Smith's breakaway white supremacist government in Rhodesia from 1965 until 1980, various measures imposed against the apartheid regime in South Africa, and modern-day U.S. pressures designed to induce the Maduro dictatorship in Venezuela to negotiate a transfer of power. Arguably, moreover, this may also cover the economic policy envisioned against the Soviet Union by National Security Decision Directive 75 (NSDD-75) of January 17, 1983, under which President Ronald Reagan

hoped, inter alia, to keep the USSR from obtaining foreign economic relief in ways that would "dilute pressures for structural change in the Soviet system."

More familiar still — but also "pressures" in the sense that I use the term here — are many of the sanctions measures that have become the "go-to" tools of first resort in American foreign policy during the last two decades. This category, moreover, also includes measures employed not merely to constrain the resources available to spend on mischief by rogue regimes such as North Korea and Iran, but also those pressures employed in order to give them incentives to relieve the pain these measures create, by coming to the table to negotiate the elimination of weapons of mass destruction threat programs.

B. Impediments

As I'll explain in a moment, my second category — "impediments" — includes what are in some ways the most strategically interesting sort of controls. For now, however, let me just note that this category includes a range of measures designed to limit a potential adversary's ability directly to threaten U.S. national security, such as by constraining the sophistication of its military capabilities.

The most basic of this sort of constraint upon trade relates to ensuring that potential adversaries are not freely able to buy arms and munitions with which they could threaten us. In U.S. statutory form, such measures go back at least to the Trading with the Enemy Act (TEA) adopted at the beginning of U.S. participation in the First World War, which tried to limit the flow to our wartime adversaries of the arms, money, metals, and machinery that had become the lifeblood of industrial-age warfare. In the 1930s, the Neutrality Acts idealistically tried to restrict the flow of arms to all belligerents, but President Franklin Roosevelt's eventual shift toward support for the United Kingdom by means of mechanisms such as the "lend-lease" program eventually undermined the blanket nature of these rules and left them primarily as impediments to potential adversary capabilities. But it has always made good sense to deny arms to one's actual or potential opponents — as, for instance, we did in ending Kuwait's U.S. defense trade license permissions in 1990 during its occupation by Iraq, in order to prevent American arms from being provided to Saddam Hussein before we ourselves went to war to save Kuwait by expelling his armies.

Our bureaucratic mechanisms for administering such pressures have also grown. The old TEA was administered by a War Trade Board, the responsibilities of which passed to the Department of State in 1919, and eventually the United States built an extensive sanctions bureaucracy. After Germany invaded Norway in 1940, the U.S. Treasury Department established an Office of Foreign Funds Control (FFC) to prevent the Nazi regime from taking advantage of its victims' foreign currency holdings; the FFC played a key role in U.S. economic warfare against the Axis Powers during the Second World War. Its descendent — the Office of Foreign Assets Control (OFAC), established after the PRC entered the Korean War — continues to play a vital role in the United States' employment of economic pressures today.

In the modern era, this category of "impediments" includes the broad range of measures we — and often the rest of the international community — impose in order to punish proliferator regimes for seeking weapons of mass destruction, or to dissuade third-parties from trafficking in items or materiel that could assist such efforts. Significantly, it also includes the national security export controls we place upon high technology items in order to prevent them from contributing to the expansion of Chinese or Russian military power in the present day.

C. Balances

My third category — which I somewhat awkwardly call "balances," for lack of a better term — consists of restrictions we place upon ourselves in order to encourage accountability and prioritization by constraining our ability to pursue one policy goal at the unreflective expense of another. This is the least intuitively obvious of the three categories, but it's very important, for it is one of the ways in which our system tries to handle the significant challenges of equity balancing, particularly (though not exclusively) in the area of arms sales.

Pursuing effective strategies in the face of national security threats requires the United States to have partners, and it often serves our interests to provide arms to friends who face threats, especially when these are shared threats. Nevertheless, the devil can lurk in detail, as the saying goes, and there can sometimes also be good reasons for caution. In an unavoidably complicated world, we are unlikely invariably to approve or wish to support everything that a given partner might request. For example, it is very unlikely to be in our interest, to say the least, to transfer arms that will be

used for internal repression, disturb a peaceful regional balance, be employed in ways heedless of international humanitarian law, or retransferred to others without our approval. We also want what we provide to genuinely serve that partner's security needs, not to mention being consistent with our own interests, and to be reasonable and appropriate — rather than either excessive or inadequate — in the face of those needs. (Nor do we want one friend to use what we provide it to threaten another of our friends.) Sometimes, furthermore, it may simply be unwise to transfer certain types of capability to a particular recipient at all, or even into its region of the world.

This is why we have "balance" policies and rules. Serious policymaking is a challenge of choice-making within constraint, and since the United States can rarely be said to have only a single, overriding interest in any given situation, such policymaking necessarily involves trade-offs along multiple axes. What I term "balancing" policies serve to structure how we think about such challenges, in order to ensure that U.S. decisions are as carefully and wisely thought through — and made with eyes as wide open — as possible.

This basic concept is not new. Indeed, statutory enactments designed to serve such "balancing" purposes go back many years, such as to the restrictions imposed by the Mutual Security Act of 1959 upon U.S. arms sales in order to help ensure that they were consistent with overall U.S. interests. Other laws, such as the Arms Export Control Act of 1968 and the International Security Assistance and Arms Export Control Act of 1976, also tried to limit and provide improved transparency and accountability for U.S. arms sales in ways designed to ensure that such transfers were genuinely integrated with broader U.S. policy equities.

Today, such balancing is not only a part of the statutory framework governing U.S. arms transfers, but also a central plank of current U.S. policy. As we recognize in the current U.S. Conventional Arms Transfer (CAT) policy, which the President signed in April 2018, decisions about selling sophisticated defense technology are rarely straightforward. The CAT policy calls upon us to carefully consider the effect each potential transfer will have upon such things as: the regional balance of power; how well a transfer responds to legitimate U.S. and recipient country security needs; the protection of the U.S. technological edge against our own adversaries; the degree to which the transfer supports U.S. strategic, foreign policy, and defense interests (e.g., through increased access and influence, allied burden sharing,

and interoperability); the impact on our nonproliferation objectives; and the potential effect upon human rights.

The focus of the CAT policy is upon aligning our policy on conventional arms transfers with our broader national and economic security interests, and this requires what is often an extremely complicated equity-balancing process as we consider potential sales. Most people do not usually focus upon such policies as part of "export control," but I would submit that they are a very important one — as well as an aspect that we take very seriously.

II. Strategy and "Impediments"

But let me now return to my particular focus here today: the sub-category of "impediments" that have to do with regulating potential technological inputs to other states' military power. This is an area that is getting increasing attention in the modern policy community, and with good reason.

The fundamental idea of limiting a potential adversary's access to increasingly sophisticated tools and capabilities is hardly new. As <u>I have pointed out</u>, in fact, it goes back many centuries — to such things as ancient Chinese efforts to control the export of crossbow trigger mechanisms that were beyond the capability of frontier barbarians to manufacture for themselves, the Byzantine Empire's efforts to safeguard the chemical secrets of "Greek Fire," Viking attempts to keep iron swords out of the hands of indigenous "Skraelings" in North America, and efforts by the Frankish Empire to keep Rhenish steel out of the hands of those very same Vikings.

A. The Cold War

In the modern world, the United States acquired statutory authority to restrict technology exports to the Soviet Bloc in 1949, with the Export Control Act. In the 1950s, we even established a multilateral consortium of countries — the Coordinating Committee for Multilateral Export Controls (COCOM) — that was devoted to keeping a list of specified commodities and technologies out of Soviet hands. (Under this system, exports of listed items to the USSR were prohibited without consensus agreement by all the COCOM parties.) After the Soviet invasion of Afghanistan, U.S. officials applied additional controls on transfers of certain lasers and materials and equipment related to (then) state-of-the-art semiconductor manufacture, and from early 1983 President Reagan's policy under NSDD-75 explicitly

sought "to prevent the transfer of technology and equipment that would make a substantial contribution directly or indirectly to Soviet military power."

COCOM did not long survive the end of the Cold War, lapsing in 1994 and being replaced in 1996 by the Wassenaar Arrangement, a voluntary multilateral export control regime that carefully eschewed any impression that it was directed "at" any particular country or bloc, instead simply urging restraint in transfers to unspecified "countries of concern." In the post-Cold War era, Wassenaar did much — along with other new fora such as the Nuclear Suppliers Group and the Australia Group — to elicit restraint in dual-use technology transfers to proliferator regimes such as North Korea and Iran, as well as to non-state actors such as terrorist groups.

In keeping with that era's prevailing (albeit dangerously false) assumption that with the collapse of the USSR, the era of great power competition was now forever behind us, however, Wassenaar departed from the COCOM model in being neither mandatory nor intended to serve as a tool of strategic advantage. (Emphasizing the degree to which it was not engineered for the challenges of great power competition — at least not vis-à-vis Moscow, at any rate — Russia has been a member of Wassenaar from the beginning.) Nevertheless, the idea of technology-focused controls designed to slow the development of strategic competitors' capabilities did not disappear, and it is today the fastest growing and in some ways the most interesting facet of U.S. national security export control policy.

Unfortunately, it has had to be.

B. "Impediment" Controls and China

Fundamentally, we have come to focus intently upon transfers of advanced and emerging technologies to the People's Republic of China *because the PRC has done so*— and because Beijing has adopted strategies in these regards that present huge threats to U.S. national security interests, especially if we were not to respond. One key to understanding these threats can be found in how PRC strategists have long approached the nexus between technology and geopolitical power.

For my part, I came to appreciate these issues through the prism of great power competition during the course of a project on Chinese views of the West for the legendary Andrew Marshall at the Office of Net

Assessments at the U.S. Department of Defense — research that resulted in a 650-page book on that topic. To my eye, one of the striking things about Chinese approaches to technology and power is the degree to which attitudes in Beijing changed radically after the Qing Dynasty's encounter with Western imperial power in the 19th Century.

Students of history may remember the infamously condescending reply the Qing Emperor gave to the British envoy Lord Amherst in 1816, who had displayed the temerity of seeking an audience with the "Son of Heaven" and had brought with him gifts representing some of the products of the Industrial Revolution then underway in England:

"My dynasty attaches no value to products from abroad: your nation's cunningly wrought and strange wares do not appeal to me in the least If you loyally accept our sovereignty and show dutiful submission, there is really no need for these yearly appearances at our Court to prove that you are indeed our vassal."

This contempt for foreign technology might on one level be surprising, for the Qing — a dynasty of Manchu rulers who had invaded and occupied China, ruling it as increasingly Sinicized foreigners since 1644 — was itself one of the so-called "gunpowder empires" that had risen to prominence in Asia during the 15th through 17th centuries in part through the skillful use of firearms and artillery against somewhat more traditionally equipped forces. Nevertheless, contempt for technology it was, and China would come to rue it, for a quarter-century after Amherst's ill-fated mission to Peking, British gunboats made short work of Qing defenses and won an easy victory in the Opium War.

That second Qing encounter with Western technology-facilitated power, in my view, helped change everything. It convinced all subsequent generations of Chinese strategists that if China were to return to the position of geopolitical centrality it had long enjoyed, it would need to master cutting-edge technology and be able to apply such technology (as the British had in their day) to the projection of military power. As I see it, China's 19th century encounters with Western military power provide a crucial context for understanding the PRC's present-day "Military-Civil Fusion" (MCF) strategy and the threats it presents to the United States and the entire non-Chinese world today. As I explained earlier this year,

"To understand MCF, it's vital to remember that cutting-edge military technology — in the form of ... British warships in the Opium War — is seen as having been at the forefront of inflicting this humiliation upon China. Accordingly, as modern Chinese strategists see it, military technology has always been the key to global primacy, with successive 'revolutions in military affairs' (RMA[s]) having helped drive and enforce geopolitical shifts.

"Those gunboats of 1842, for instance, were possible because Britain led the Industrial Revolution, giving London its storied empire upon which the sun never set. In the 20th Century, the United States became the world's central power, driven by our technological dynamism and solidifying our status with the aircraft, submarines, missiles, and nuclear weapons of a new RMA that made Britain's famous battleships obsolete. Indeed, we are felt to have cemented an even more dominant position after the end of the Cold War through another RMA grounded in our information technology revolution.

"Simply put, it is the objective of MCF to ensure that it will be the PRC that rides the wave to geopolitical centrality for the next RMA. Xi [Jinping] has decreed that China must develop military capabilities superior to any other military in the world by 2049, and MCF — the ruthless acquisition and systematic diversion to military purposes of technologies such as artificial intelligence, quantum computing, aviation and aerospace, Big Data applications, and civil nuclear power — is a central piece of that plan. If there is to be a mid-21st Century analogue to Britain's imperialist gunboats, the CCP intends them to be Chinese assets."

Beijing may have lost out on those RMAs that occurred after the Manchus' own success in successfully marshalling gunpowder weaponry to conquer China in 1644, in other words, but it is determined to lead the next RMA. It is the objective of MCF to fuel this success, by developing technology indigenously wherever possible but also buying or stealing from abroad what China cannot develop at home, and by permitting the seamless flow of materials, technology, knowledge, talent, and resources back and forth between the military and civilian industrial complexes in order to allow the PRC to build up its "comprehensive national power" and use this power to achieve the overall objective of "national rejuvenation" in the world.

This, then, is what makes the national security export control category of "impediments" so crucial. It is important beyond peradventure to United States' interests — and likeminded nations — that the Chinese Communist Party (CCP) not be able to succeed in positioning itself atop the 21st century world in the way the Qing "Sons of Heaven" positioned themselves above that of 17th and 18th century Asia.

Careful control of high-technology exports, not just by the United States itself but by all non-PRC technology possessors, is therefore essential to forestalling such a grim Communist Party imperium, for despite the PRC's huge progress in recent years — progress fueled, for instance, by systematic cyber-facilitated intellectual property theft on an epic scale that has been said to represent "the single greatest transfer of wealth in history" — the PRC still remains dependent upon foreign technology in some critical areas. With their MCF strategy and technology theft, CCP leaders are working to close those technology gaps, but they have not succeeded yet, and this gives us the opportunity to slow them down. hopefully to a rate of military-technological advancement slower than our own. This is where grand strategy and export controls come together, and it is in some ways the cutting edge of U.S. national security policymaking today.

III. Our Responses

Having awakened to these challenges after decades of slumber induced by happy post-Cold War visions that unfortunately failed to materialize — dreams of putting great power competition behind us, and of global convergence upon norms of liberal democracy — the United States is now working to address the challenge presented by the CCP's strategic ambition and the critical role of technology acquisition in Beijing's strategy. As Secretary of State Pompeo has noted, the goal of the PRC's MCF strategy is

"to ensure that the People's Liberation Army has military dominance. And the PLA's core mission is to sustain the Chinese Communist Party's grip on power — that same Chinese Communist Party that has led China in an increasingly authoritarian direction and one that is increasingly repressive as well. ... [W]e need to make sure that our companies don't do deals that strengthen a competitor's military or tighten the regime's grip of repression in parts of that country. We need to make sure American technology doesn't power a truly Orwellian surveillance state. We need to make sure American principles aren't sacrificed for prosperity."

This is most emphatically, therefore, <u>a national security</u> threat as well as an economic and trade problem.

Early in the current administration, we began raising awareness of these challenges. In July 2018, I drew attention to the problems MCF created for traditional approaches to export controls, highlighting that "some recalibration" would be necessary in order to keep Beijing from diverting U.S.-origin technology to support the PLA. In October 2018, we duly announced a new policy that dramatically cut back civil-nuclear technology transfers to the PRC, but this was merely a first step.

More broadly, as part of our effort to build "coalitions of caution" on technology-transfer issues visà-vis China, we stepped up our diplomacy with likeminded partners, both bilaterally and multilaterally — including through the <u>Multilateral Action on Sensitive</u> <u>Technologies</u> process — to raise awareness of these threats and to compare notes on "best practices" that countries can follow in response to them. In the wake of the indictment (not just once but twice) of the PRC company Huawei by the U.S. Department of Justice for stealing U.S. technology and helping Iran evade nonproliferation sanctions, we placed Huawei on the Commerce Department's "Entity List" of foreign actors engaged in "activities contrary to U.S. national security and/or foreign policy interests." In May 2020, the United States changed its export control regulations in order to restrict Huawei's ability to circumvent controls by designing semiconductors and having them produced abroad using software-based design tools and equipment of U.S. origin. Additional adjustments were also announced on August 17, which will prevent Huawei from circumventing U.S. law through alternative chip production and provision of off-the-shelf chips produced with tools acquired from the United States.

Informed by a clear understanding of the ways in which the CCP's MCF strategy has been systematically eroding prior distinctions between what is "civilian" and what is "military" in China, <u>U.S. export control rules were also expanded in April 2020</u> to cover "military endusers" (MEUs) in the PRC, including commercial entities when their functions are intended to support defined "military end-uses." (The list of Export Control Classification Numbers [ECCNs] that are subject to MEU licensing requirements was also expanded.) Additionally, in May 2020, the United States <u>announced a significant new change</u> in its approach to granting visas to certain applicants from the PRC who wish to study or conduct research in the United States — a measure directly responsive to our evolving understanding of the

ways in which the CCP has been working to use traveling students, researchers, scientists, and technicians to target technology areas identified for priority collection by the MCF bureaucracy.

Pursuant to the new authorities given us by Congress in the Foreign Investment Risk Review Modernization Act of 2018 (FIRRMA), moreover, the U.S. Executive Branch has also been working to improve the controls we use - e.g., through the Committee on Foreign Investment in the United States (CFIUS) process — to forestall foreign acquisition of U.S. companies and other investments in ways that create national security threats. For years, PRC entities and others had been honing their skills in evading traditional CFIUS controls, but FIRRMA significantly expanded the scope of covered transactions, so as now also to catch such things as property leases undertaken in proximity to sensitive government facilities, various types of transaction not amounting to corporate control but that nonetheless afford access to material nonpublic technical information in the possession of a U.S. business, and transactions that are specifically designed to circumvent CFIUS jurisdiction.

Similarly, the Export Control Reform Act of 2018 (ECRA) — another new statute Congress passed in order to respond to foreign technology-transfer threats such as those presented by the PRC's MCF system — called for the identification of "emerging and foundational technologies" that are not yet listed on the Commerce Control List or subject to multilateral controls but that are nonetheless important to U.S. national security, and authorized the establishment of controls on the export, re-export, or transfer of such technologies where this should prove appropriate. Under ECRA, we have been engaged in an extensive interagency process to identify what technologies it might be both necessary and possible to control, and 14 "sprint groups" have been working hard to explore possible controls in fields such as artificial intelligence, additive manufacturing, quantum information and sensing, hypersonics, advanced materials, and advanced computing. (Additionally, we are evaluating microprocessors, biotechnology, position/navigation/timing, data analytics, logistics, robotics, brain-computer interfaces, and advanced surveillance technologies.) All of these groups contain constantly shifting components and emerging technology that the United States is racing to understand and where appropriate, control.

It is far from clear what specific new controls will result from this still-ongoing, ECRA-based process, but the U.S. interagency is now working, for the first time, to address national security export control issues not just for today's technologies but also for tomorrow's. This, too, is part of our broad and strategic response to the technology-transfer challenges with which the PRC has confronted us.

IV. Conclusion

All of these developments make this moment in U.S. policymaking history something of a "present at the creation" point with regard to how the United States responds to technology transfer threats. We are approaching these questions both strategically and systematically, and both on an interagency-wide basis and, as FIRRMA and ECRA demonstrate, in partnership with Congress, where there exists wide bipartisan support for more effective technology controls vis-à-vis China. Mindful of the importance of finding a path in U.S.-China relations that is in appropriate respects both competitive and cooperative, thereby finding "a prudent middle way" between such extremes, we hope to be able to take advantage of this moment of opportunity to develop, articulate, and set in place a new policy community consensus built around the "coalitions of caution" concept for dealing with Beijing on technology issues.

Naturally, we should expect that the CCP and its supporters and apologists will decry these moves, and they do. In a backhanded way, however, the very vehemence of their complaints provides a window upon the success our approach is starting to have in cutting off some of the foreign technology flows Beijing has sought to maintain in furtherance of its strategic ambitions. In fact, as our strategy begins to bite — as long as it is not turned around by U.S. leaders trying to wish away the PRC's strategic ambitions — one can expect to hear such complaints escalate. We will surely hear additional CCP propaganda tropes about how U.S. technology controls supposedly represent a retrograde "Cold War mentality," and how they are allegedly being implemented solely for "domestic political reasons" rather than in response to national security challenges. Such narratives should be rejected, and indeed taken as a sign of our progress in hampering Beijing's strategic self-aggrandizement.

We should also expect to have to change our approaches over time, as the PRC changes its own. Just as the MCF strategy and the PRC's methods of technology acquisition originally evolved in order to target prior weaknesses in Western technology controls, so will the PRC's future approaches surely also be adjusted in attempts to work around the strictures we are today

Export Controls and National Security Strategy in the 21st Century

putting in place. There is no room for complacency in security strategy, and we must be sure — in this ongoing game of "cat and mouse" — that we continue to adapt our methods to the threat as that threat changes.

Nevertheless, while there is an enormous amount of work left to do, this is fundamentally a hopeful story, for while we have awakened to it somewhat belatedly, we have recognized the threat and are presently mobilizing to meet it. I hope that this brief outline has helped you appreciate both the novelty and the importance of these challenges. I can assure you that we are working hard to answer them.





Arms Control and International Security Papers

The Arms Control and International Security Papers are produced by the Office of the Under Secretary of State for Arms Control and International Security in order to make U.S. State Department policy analysis available in an electronically-accessible format compatible with "social distancing" during the COVID-19 crisis.