Built in China: Beijing’s Defense Industrial Base and Implications for the United States

Seth G. Jones
Senior Vice President, Harold Brown Chair, and Director, International Security Program
China is rapidly developing a robust defense industrial base to deter, fight, and win a war against the United States.

Over the past decade, China has ramped up its defense industrial base in several ways. One is an improvement in the process of how China researches, develops, and produces advanced weapons systems. Under Secretary of Defense for Acquisition and Sustainment William LaPlante called China “really impressive” in discussing China’s defense industrial base at the Center for Strategic and International Studies. He also remarked:

“They’ve developed . . . really good high-end capability in numbers. So they’ve done the development and the development has been pretty continuous and not just one thing. They place multiple bets. We don’t do that. . . . We very rarely will place multiple bets and . . . [have] three different development activities going on. We used to do that. We don’t do that.⁴

These efforts have improved Chinese air, land, naval, space, and cyber capabilities. For example, the People’s Liberation Army (PLA) is developing...
and producing a significant number of medium- and long-range missiles that can strike U.S. and allied land, air, and sea bases across the Indo-Pacific region. The PLA is also constructing and deploying integrated air defense systems to challenge U.S. forces attempting to operate near such areas as the Taiwan Strait. China now boasts three of the world’s 10 largest defense companies.  

Chinese capabilities are particularly robust in shipbuilding. China’s ability to rapidly build large numbers of ships represents a strategic advantage in a prolonged war. China is now the world’s largest shipbuilder. It has a shipbuilding capacity that is over 230 times greater than the United States. According to Carlos Del Toro, secretary of the Navy, one of China’s shipyards has more capacity than all U.S. shipyards combined. “That presents a real threat,” Del Toro acknowledged.

While these efforts are impressive, China still faces challenges. For example, the Chinese defense industry relies on foreign parts in several areas, such as engines and engine parts for diesel submarines and advanced aircraft. In addition, China struggles in such areas as designing specialized sound-absorbing coatings, dealing with vibration suppression issues created by steam turbines, and decreasing the sonar signature of its hull designs. Finally, China’s defense industrial base—and the Chinese Communist Party and PLA more broadly—suffer from extensive graft and corruption, which likely affects the quality of military systems.

Despite these challenges, China is getting better. But the United States is lagging in several areas of its defense industrial base, weakening the prospect of deterrence and warfighting. For instance, the United States faces a serious shortfall of munitions—especially long-range precision munitions—and other weapons systems for a protracted war in such areas as the Indo-Pacific. In addition, Congress has dragged its feet in fixing contracting problems, such as multiyear procurement. Supply chain challenges remain serious, including an insufficient supply of solid rocket motors, ball bearings, microelectronics, and seekers for munitions. Today’s workforce is also inadequate to meet the demands of the defense industrial base, and the U.S. labor market struggles to provide enough workers with the right skills to meet defense demands.

Thankfully, all is not lost. Far from it. The United States has made progress in some areas of the industrial base. For example, the Department of Defense has ramped up production lines for some weapons systems, such as 155-millimeter rounds, Stinger air defense systems, the Javelin anti-tank weapons system, and Patriot Advanced Capability–3 (PAC-3) air defense systems. In addition, the U.S. private sector is the most innovative in the world, and the United States has a strong track record of eventually ramping up its defense industrial base during periods of crisis, such as World War II, the Korean War, and the buildup under President Ronald Reagan at the height of the Cold War.

Today, the United States needs to take several steps to revitalize its defense industrial base.

First, the Department of Defense and Congress need to expand the use of multiyear contracts to create sustained demand signals that will promote investment in the industrial base. Multiyear contracts have typically been reserved for only the most expensive acquisition platforms and systems, such as large navy ships. Yet multiyear procurement is important for munitions critical for deterrence and warfighting in the Indo-Pacific, such as the Long Range Anti-Ship Missile (LRASM), Joint Air-to-Surface Standoff Missile (JASSM), PAC-3, Standard Missile–6 (SM–6), and AIM-120 Advanced Medium-Range Air-to-Air Missiles (AMRAAMS).

Second, the Department of Defense and Congress should allocate additional funding for contracts and other incentives, such as tax incentives, regulatory relief, and long-term contracts, to build and maintain spare production capacity. This funding can be used to modernize and expand facilities and develop flexible production. The Department of Defense maintains stockpiles of key munitions, minerals, chemicals, technology, and medical supplies, but it
needs to better manage inventory and stockpile planning to decrease near-term risk.

Third, the United States needs to diversify the supplier base for the defense industry and invest in new production methods. The Department of Defense should look for opportunities to assist companies with upskilling and reskilling workers by offering incentives, such as expanding investments in the Manufacturing Innovation Institutes and in programs designed to support the talent necessary for defense-related manufacturing and science, technology, engineering, and mathematics jobs.

These steps are important to strengthen the U.S. defense industrial base to deter China and prepare for contingencies in case deterrence fails. President Franklin Delano Roosevelt in his victory speech in December 1940, one year before the attack on Pearl Harbor, implored the nation to revitalize its defense industry. It is a message that is just as relevant today:

We must be the great arsenal of democracy. For us this is an emergency as serious as war itself. We must apply ourselves to our task with the same resolution, the same sense of urgency, the same spirit of patriotism and sacrifice as we would show were we at war.12