

c. Unrestricted Economic Warfare Is the CCP's Heavy Weaponry

If external foreign propaganda, perception-management, and united front work are the Party's forms of soft power, then its high-tech industry must become the Party's hard power. In the 1950s, the CCP's slogan was to "surpass the United Kingdom and catch up with the United States" — but it was a farce. Today, however, the same strategy has become a legitimate threat.

Since the 1980s, the CCP has implemented a series of strategic plans in science and technology, including the 863 Program (the National High-Tech R&D Program), Program 973 (National Program on Key Basic Research Projects), and Made in China 2025 (to transform China from a manufacturing country to a manufacturing power by 2025, taking the lead in big data, 5G, and the like). The strategy includes ambitious plans for artificial intelligence, in which China aims to be a world leader by 2030. The purpose is to upgrade China's status as the world factory to an advanced manufacturing giant, thereby attaining global supremacy.

It's not wrong for a nation to pursue industrial development. For a country to use state power to allocate resources to research and development in key industries is also legitimate. Why, then, is the CCP's high-tech development strategy a threat to the West?

The most fundamental reason is that China under the Chinese communist regime is not a normal country. The purpose of the regime's technological development is not so it can join the ranks of the world's other high-tech countries or compete on equal footing with them. Its purpose is to use any means to eliminate opponents and take down

Western economies — especially that of the United States — and thus be one step closer to dominating the world. The CCP's development of its scientific and technological strength is for serving its communist ideology, and ultimately for having communism rule the world.

Technological innovation is the fruit of individual liberty in a capitalist society, which is in natural conflict with the totalitarian rule of communism. Researchers in mainland China are deprived of the freedom to use foreign search engines, let alone express their freedom in other ways. Thus it's indeed difficult to make real breakthroughs in scientific and technological innovation given the CCP's restrictions on thought and access to information.

To make up for this, the Party has used various underhanded means to steal Western technology and win over cutting-edge talent, and has also used unfair and extraordinary measures to undermine Western industry. The CCP has stolen technologies the West has spent decades and vast sums of money to develop. It assimilates and improves upon the stolen intellectual properties and then simply mass-produces them at little cost and dumps the products on the world, debilitating private Western enterprises and economies. Thus, the regime has been using its techniques of unrestricted warfare in its technological competition with the West.

The Trap of Trading Technology for Market Access

In recent years, China's high-speed rail network has become almost like a business card for the country's high-end manufacturing prowess, and the idea of "high-speed rail diplomacy" has developed. Chinese state media has called China's work in this area legendary, given the short

developmental period of only around ten years. But to Western companies, China's high-speed rail buildup has been a nightmare of technology theft, endless traps, and what ultimately became small gains for huge losses.

Work on China's high-speed rail project began in the early 1990s. By the end of 2005, the authorities abandoned the idea of developing the technology independently and turned to Western technology. The CCP's goal was clear from the beginning: It planned to first acquire the technology, then manufacture it, and finally sell the same technology more cheaply on the global market.

The Chinese side requires that foreign manufacturers sign a technology-transfer contract with a Chinese domestic firm before bidding on construction contracts, or else they're not allowed to enter bids. The Chinese authorities also established formal internal assessments called "technology-transfer-implementation evaluations," which focus not on how well foreign businesses teach their systems, but on how well domestic companies learn them. If domestic enterprises don't learn the technology, China doesn't pay. The authorities also required that by the last batch of orders, local companies must produce 70 percent of the orders.[40]

Because foreign companies felt China's market was an opportunity not be missed, such terms didn't prevent them from signing on. Japan's Kawasaki Heavy Industries, France's Alstom, Germany's Siemens, and Canada's Bombardier all submitted bids. Despite the promise of market access in exchange for technology transfer, no Western company was willing to transfer its core, most-valued technology. However, the CCP

continued to play games with several of the companies in the hopes that at least one would relent and give up something of real value for the benefit of short-term interests. Sure enough, when it appeared that one company would get a chunk of the Chinese market in exchange for technology, the others began to fear being left out. Thus, several of them fell into the CCP's trap, with the result that China was able to extract key technology from the above four high-speed rail companies.

The Chinese government has invested huge sums in the project, acting regardless of cost. China's high-speed rail network subsequently entered a period of exponential development as Chinese firms built out the world's most extensive high-speed rail system by mileage. In a few years, China rapidly assimilated Western technology, which was then turned into "independent intellectual property rights." What really shocked Western companies was when China then began applying for high-speed rail patents abroad, with Chinese firms becoming fierce competitors against their former teachers on the international market. Because Chinese companies have accumulated a great deal of practical experience in this realm, and are afforded all the industrial advantages brought by large-scale production capacity and massive state financial backing, China's high-speed rail industry possesses a competitive advantage against peers. It has become a key element of the Party's One Belt, One Road project.

While foreign companies once dreamed of getting their share of the huge market for high-speed rail in China, they found instead that not only were they squeezed out of that market, but they also had created a tough international competitor. Yoshiyuki Kasai, an honorary chairman of the Central Japan Railway Company, said with distress:

“The Shinkansen [Japanese bullet train] is the jewel of Japan. The technology transfer to China was a huge mistake.”[41]

The CCP itself acknowledges that China’s success in high-speed rail was achieved by standing on the shoulders of giants. Indeed, its purpose from the beginning was to slay all other giants. The CCP has an explicit dual purpose: Its short-term goal is to use economic achievements to prove the legitimacy of its regime and to make economic and technological progress to maintain and excite nationalist sentiment and propaganda. But its long-term purpose is to prove that its communist system is superior to the capitalist system, so it unscrupulously steals technology and turns the power of the entire country to competing with capitalist free enterprise.

China’s tactics of promising market access in exchange for technology, coercing tech transfers, absorbing and improving foreign technology, having its own firms practice in the domestic market before advancing to the world, and dumping products globally to undercut competitors, have led Western companies to suffer immensely. Now some are beginning to reflect. Others, however, are drawn like a moth to a flame and are still willing to do business with the CCP for their immediate benefits. The CCP’s ambitions to acquire Western technology have never abated, and the Made in China 2025 program is the embodiment of this ambition.

In 2015, the Chinese government proposed the ten-year Made in China 2025 project, envisioning that by 2025, China would have transformed from a big manufacturing country to a manufacturing power, and that by 2035, the country’s manufacturing industry would surpass that of

industrially advanced countries like Germany and Japan. By 2049, the CCP hopes it will lead innovation in key manufacturing sectors as global leaders in key technologies and industries. Using lofty words, the CCP regime has raised the status of its manufacturing sector to “the foundation of the nation” and “the instrument for rejuvenating the country.”

A Manufacturing Superpower Built on Theft

How did China boost its manufacturing and innovative potential in such a short period of time? It used the same old tricks: First, it coerced companies to transfer their technologies, as in the case with high-speed rail. Many Western corporations are willing to provide technology in exchange for access to the Chinese market, training their future competitors at the same time. Second, China demands the companies form joint ventures with its own firms, and supports Chinese companies and universities in collaborating with high-tech companies, so they can acquire such technologies. Third, the regime encourages its domestic firms to make acquisitions of overseas high-tech companies, directly investing in startups with key technologies, and establishing overseas research-and-development centers. Fourth, it induces leading foreign tech and scientific research institutes to set up R&D centers in China. Fifth, it uses targeted policies to bring in foreign technology experts.

Many startups in Silicon Valley need capital. China uses taxpayer money to invest in them in order to get its hands on new technologies, including rocket engines, sensors for autonomous navy ships, and 3D printers that manufacture flexible screens that could be used in fighter-plane cockpits.[42] Ken Wilcox, chairman emeritus of Silicon Valley

Bank, said in 2017 that within a six-month period, he was approached by three different Chinese state-owned enterprises about acting as their agent to buy technology on their behalf. Though he declined, he said: “In all three cases, they said they had a mandate from Beijing, and they had no idea what they wanted to buy. It was just any and all tech.”[43]

In November 2018, the United States Trade Representative (USTR) published the findings of a Section 301 investigation. The report says that Danhua Capital (currently Digital Horizon Capital) uses China’s venture capital to help the Chinese government gain top technologies and intellectual property in the United States.[44]

The above report by the U.S. government is open for the public to see. The killer weapon that China uses to realize its technological leap forward is the blatant theft of Western technology. China’s aptitude for industrial espionage far exceeds the scope of commercial spies in the past. In order to steal technology and secrets from the West, the regime mobilizes all available personnel and tactics — including espionage, hackers, international students, visiting scholars, Chinese and Taiwanese immigrants working in Western companies, and Westerners lured by monetary interests..

The CCP has always coveted the US F-35 stealth fighter jet. A Canadian permanent citizen, Su Bin from China, was sentenced to five years in prison for stealing F-35 secrets in 2016. Su worked with two hackers from the Chinese military, penetrating the computer systems of Lockheed Martin, the manufacturer, and exfiltrating secrets. The group also stole secrets related to the F-22 stealth fighter. Investigation found that Su’s group had also stolen secrets about Boeing’s C-17 strategic

transport aircraft, and 630,000 files from Boeing's system, totalling some 65 gigabytes of data.[45] The PLA's own J-20 stealth fighter exhibited in recent years is now very similar to the American F-22, and the smaller Chinese FC-31 is an imitation of Lockheed's F-35.

Dr. David Smith, a Duke University metamaterials expert, invented a kind of invisibility cloak, an important material for stealth fighters, and the U.S. military invested millions in support of his research. In 2006, Chinese student Liu Ruopeng came to Smith's lab. In the view of an FBI counterintelligence official, Liu had a specific mission — to obtain the secrets. In 2007, Liu took two former colleagues traveling at Chinese government expense to Smith's lab, and worked on the invisibility cloak for a period of time. To Smith's surprise, the same laboratory was later duplicated in China.[46]

On December 20, 2018, the Department of Justice sued two Chinese citizens from the Chinese hacker organization APT 10, which has close ties with the CCP. According to the indictment, from 2006 to 2018, APT 10 carried out extensive hacking attacks, stealing massive amounts of information from more than forty-five organizations, including NASA and the Department of Energy. The information stolen involves medicines, biotechnology, finance, manufacturing, petroleum, and natural gas. The then-FBI Director Christopher Wray remarked: "China's goal, simply put, is to replace the U.S. as the world's leading superpower, and they're using illegal methods to get there. They're using an expanding set of non-traditional and illegal methods." [47]

China's theft of technology and patents is hard to combat and prevent. Kathleen Puckett, a former U.S. counterintelligence officer in San

Francisco, said that China puts all its efforts into espionage and gets everything for free.[48]

China moralized, rationalized, normalized, and militarized its stealing spree. It launched a “war against everyone” to loot advanced technology from the West, using patriotism, racial sentiments, money, and prestige. Such appalling conduct is unprecedented historically.

Some have defended China’s activities by arguing that the theft can’t amount to all that much, since by stealing a bit here and there, Chinese firms don’t get the full picture of how technology is deployed and scaled. But it’s very dangerous to look at Chinese industrial espionage this way. Espionage in the electronic age is completely different from that in decades past, in which spies would take a few photos. China steals entire databases of technologies, and in many cases, scoops up not only the technology, but also the experts. With the power of the world factory that China has developed for decades and the R&D potential it has accumulated, the regime is truly able and willing to build a manufacturing superpower based on theft — and it is on course to do so.

The Thousand Talents Program: Espionage and Talent Attraction

From when China opened up in the 1970s until now, millions of Chinese students have studied overseas and have achieved great things. China seeks to recruit and use these talented individuals, invested in and trained by the West, to directly bring back to China the technology and economic information they’ve acquired. This aids the CCP’s ambitions in gaining global supremacy. Since 2008, multiple departments in China have initiated the Thousand Talents Program. On the surface, it’s about

recruiting top Chinese talent overseas to return to China for full- or short-term positions. But the real goal behind the program is for state industry to get its hands on new technology and intellectual property from the West.

The FBI released a declassified document about these Chinese talent programs in September 2015. It concludes that recruiting target individuals can allow China to profit in three ways: gaining access to research and expertise in cutting-edge technology, benefiting from years of scientific research conducted in the United States and supported by U.S. government grants and private funding, and severely impacting the U.S. economy.[49]

The National Institute of Health released a report on the Chinese talent programs on December 13, 2018, noting that foreign nationals transferred U.S. intellectual property to their native countries while on the U.S. government payroll. Their actions have unfairly impacted all U.S. academic institutions.[50] M. Roy Wilson, one of the authors of the report and co-chair of the NIH Advisory Committee, said that a key qualification of becoming part of the Thousand Talents Program is having access to valuable intellectual property. He said that the problem was significant, not random, and that the severity of the intellectual property losses was impossible to ignore.[51]

Peter Harrell, adjunct senior fellow in the energy, economics, and security program at the Center for a New American Security, said: “China is pursuing a whole-of-society approach to its technological capabilities. That includes purchasing innovative companies through overseas investments, requiring Western companies to transfer cutting-

edge technologies to China as a condition of market access, providing vast state resources to finance domestic technological development, financing training for top Chinese students and researchers overseas, and paying a hefty premium to attract talent back to China.”[52]

The Thousand Talents Program includes as its targets almost all Chinese students who have come to the United States since the 1980s and who find themselves with access to useful information for the regime’s industrial, technological, and economic development — potentially tens of thousands of individuals. The CCP is mobilizing the capacity of the entire country and population to conduct unrestricted warfare in its recruitment of talent and intellectual properties.

A Sinister, Total National System

In addition to outright stealing, China’s state support and subsidies are also an important means for the CCP to accomplish its ambitions. State support means that the regime can use huge sums of money to support key industries. Effectively, this is about using China’s national power to exert pressure on private businesses in the West. This poses an enormous, unique challenge to countries where leaders are democratically elected and leave business decisions to businesses themselves. It can be said that Western companies have lost before the game has even begun. China’s subsidies — ultimately taken out of the pocket of the unconsenting taxpayer — mean that Chinese manufacturers can ignore the real costs, making them unstoppable predators in international markets.

The solar cell industry is a classic example of the Chinese regime's subsidies. Ten years ago, there were no Chinese companies among the top ten solar-cell manufacturers, but now there are six from China, including the top two. The green energy industry was heavily promoted during President Obama's first term, but before long, dozens of solar-panel makers were filing for bankruptcy or had to cut back their businesses in the face of unrelenting competition from China, which undermined the enthusiasm for clean energy at the time.[53] The damage was caused by China's dumping products on the world market, which was enabled by the regime's subsidies for its domestic solar industry.

In Western countries, states also fund key projects, including those on the cutting edge of technological development. The prototype of the internet, for instance, was first developed by the U.S. Department of Defense. However, in the West, government participation at the national level is limited. Once a technology is commercialized, private companies are free to act as they will. For example, NASA disseminated its advanced research results to industry through its Technology Transfer Program. Many of its software projects simply put their source code on the Web as open source. In contrast, the CCP directly uses the power of the state to commercialize high-tech, which is equivalent to using a "China Inc." to compete against individual Western firms.

The Made in China 2025 project is, of course, inseparable from state subsidies and state industrial planning. If the CCP continues on its current track, the story of the solar panels will play out again in other industries, and Chinese products will become global job-killers. Through unrestricted economic and technological warfare, the CCP has

successfully led many Western companies, including multinational corporations, into a trap. They handed over capital and advanced technology, but weren't able to compete fairly in the Chinese market, and instead helped create their own state-backed competitors. The CCP used them as pawns to achieve its ambitions.