An insight into China's high-tech development and its implications

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A major article published on Bloomberg at the end of last month provides a detailed analysis of the US high-tech economic war against China, and draws the conclusion, as indicated in the headline, that "US efforts to contain [Chinese president] Xi's push for tech supremacy are faltering."

The consequences, as indicated in the article at least to some extent, are that the US drive against China will assume ever more aggressive forms, bringing the prospect of war even closer.

The article began by noting that "at a glance" the US campaign appeared to be successful given that Chinese tech giants had been cut off from access to the highest level of chip making capacity.

This was because the US has been successful in pressuring the Dutch firm ASML into refusing to supply China with its "one-of-a-kind" machines necessary to make the most advanced chips.

But deeper research showed that despite export controls and financial sanctions China was making "steady progress" in developing the industries of the future and that the Made in China 2025 program launched a decade ago by Xi, "has largely been a success."

"Of 13 key technologies tracked by Bloomberg researchers, China has achieved a global leadership in five of them and is catching up fast in seven others."

The article cited comments by Adam Posen, president of the Washington-based think tank, the Institute for International Economics, who said: "China's technological rise will not be stymied, and might not even be slowed, by US restrictions." The only exception would be "draconian ones" that slow the pace of innovation in the US and globally.

It pointed to the vast transformation that has taken place over the past three decades in the very structure of the world economy, noting that China's "manufactured goods trade surplus is the largest relative to global GDP since the US right after World War II." China had taken the lead in the making of electric vehicles (EVs), batteries and solar panels.

The battle would continue whoever won the White House in the presidential election with the US focused on trying to prevent China from catching up in the manufacture of cutting-edge chips.

It is not confined to the economic sphere. As the article continued: "For policymakers in Washington and Beijing, the push to win the technology race is driven by a number of considerations, including a desire to drive development, create jobs and secure supply chains. But officials in both capitals say another factor is playing a bigger role in economic policy these days: Preparation for a potential war, even if one isn't imminent or planned."

On the US side, it cited remarks by US National Security Adviser Jake Sullivan in a major speech in 2022 in which he outlined a series of areas, including semiconductors, clean energy and biotech, in which he said the US would seek to "maintain as large of a lead as possible."

Sullivan said export controls, which have increasingly been used by the Biden administration, going well beyond the tariffs and other measures introduced during the Trump presidency, were a "new strategic asset" that would be used to impose costs on adversaries and "degrade their battlefield capabilities."

In their official statements, Chinese authorities pursue a different tack. They insist they are seeking to uphold the international free trade order which the US is in the process of upending.

But they know that US strategic planning is not only directed at trade but involves war in which the US

would seek to cut off vital supplies of raw materials, particularly energy and so are seeking to develop Chinese capacity in alternative energy sources.

This means, the article noted, that "the possibility of an all-out conflict means China has no intention of degrading its manufacturing power, despite US demands that Xi's government reduce overcapacity and rebalance the economy more towards consumption."

There is no doubt the US bans on the export of the most developed computer chips and highly complex chip-making equipment is having an impact. But the analysis said that despite this "China continued to climb the ladder of manufacturing dominance and technological advance" and that if the US wanted to win the competition it would need to "run faster or try harder to trip China."

This portends ever increasing economic warfare. But at a certain point this will develop into the increased use of military methods. This is because, as Shen Meng, a director at the Beijing investment bank Chanson, told the researchers while "the efforts to contain China worked in the short term" in the long run "China will find ways to circumvent this containment."

This is not idle speculation but is reflected in the case of the Chinese telecommunications giant Huawei. In 2019 the Trump administration put a ban on the company denying it access to advanced chips necessary for its mobile phones and its sales slumped.

But it poured money into research and development and worked with domestic suppliers to develop a more advanced chip which the US considered would not be possible. While the Chinese developed chip is not top of the range, according to the article: "Huawei's smartphone business has since recovered and is now challenging Apple."

Paul Triolo, an analyst at a Washington-based advisory firm said that while Huawei's AI chips were not as advanced as those produced by Apple and Nvidia "they are capable enough for many applications."

He said China had made "major progress" towards manufacturing without the use of US tools, but this process would be slow and challenging "as the US continues to ratchet up controls targeting both tool makers and front-end manufacturing facilities."

It may be slow but there is no denying the direction of development. Goldman Sachs has estimated that China could lift its chip self-sufficiency to 40 percent by 2030, nearly double its present level. Even though this development may not yet be top of the range it will provoke an even more aggressive response from the US.

The development of Chinese high-tech, and the increasingly bellicose response of the US towards it, underscores the utterly reactionary character of the nation-state system in which the capitalist system is rooted and the historic necessity for its abolition by the international working class in the struggle to take political power and establish socialism.

High-tech development, which like every other advance in the productive forces, is not the product of one nation but is a global product, involving the labour of workers, scientists, engineers, programmers etc, drawn from all over the world.

It contains the potential for a tremendous advance in social conditions and living standards for the world's people. But so long as this contradiction, between its global scope and the division of the world by the nation-state system, remains, this very development brings ever-closer the danger of world war and the destruction of civilisation as the major imperialist powers seek to resolve it by establishing themselves as the dominant force.