The geopolitics of semiconductors

The US has a chokehold on China when it comes to US semiconductor industry, as China lacks the technical capacity to make chips sophisticated enough to power the next generation of machines.

Bilahari Kausikan
For The Straits Times

United States-China relations are in a new phase of heightened strategic competition. Mercury demand makes was highly improbable. The fear of mutually assured destruction will keep the peace between the US and China, as long as the United States does not choose to use force.

The US and China will avoid direct military confrontation and find it too dangerous to compete.

The US and China are interdependent as the US and Soviet Union once were, and in a way, even before the existence of China. They are interdependent on technology and systems that benefit one side at the expense of the other.

American companies are well aware of China’s determination to make its economy one of the world’s largest and strongest. The US and China are interdependent as the US and Soviet Union once were, and in a way, even before the existence of China. They are interdependent on technology and systems that benefit one side at the expense of the other.

Chinese companies are vulnerable to US sanctions and their ability to import US technology is limited by US law. In 2018, Chinese technology companies accounted for over 3,000 billion sales of US technology and products, and in 2019, over 1,000 billion US dollars of US technology and products.

The US-Chinese semiconductor industry is dominated by just three companies: Intel, Samsung and Taiwan Semiconductor Manufacturing Company (TSMC), which are capable of producing at the most advanced process nodes, the industry norm for a specific generation of manufacturing process; and both according to US law.

TSMC’s production technology advances are at the forefront of the US semiconductor industry and its design technology advances are at the forefront of the US semiconductor industry. The US is the world’s largest consumer and importer of semiconductor technology.

China has a large and capable semiconductor industry and is the world’s largest consumer and importer of semiconductor technology. The United States is the world’s largest consumer of semiconductor technology and importation.

CHINA OPTIONS

Once a supply of semiconductors runs out, which is likely, US experts think China will be the next target. Huawei will collapse, unless it manages to increase its market share. But the restrictions could easily be extended to American companies as well.

Huawei is a smaller player, but its restrictions could easily be extended to American companies as well. The restrictions could easily be extended to American companies as well.