

## Chairman's Note

Private and Confidential

For SIIA Corporate Members and Advisors



### U.S. Chips Act and Decoupling

Many of us are concerned with the prospect of an economic decoupling between the USA and China. A recent and specific development in this regard is The CHIPS and Science Act and export control measures imposed by the USA in October 2022, targeting this sector in China. A number of our members have asked our views about any broader implications.

The SIIA has been looking at this issue in the context of Sino-American competition and the implications for ASEAN, as well as our program to help our region move forward with the digital economy. We recently spoke and participated at a high-level conference with the Peterson Institute for International Economics (PIIE) on high technology competition with China. This note draws on that work, as well as dialogues with some of the leading companies involved in the digital economy, relevant government agencies and our desktop research.

While the issue is concentrated on one sector, we believe there are broader implications for the economy, investment and trade, and for companies even in other sectors. Please note that this information is provided on a confidential basis to you, as our member and friend.

1. **Context:** Sino-American tensions continue to pressure not only questions of politics and security (like Cross-Straits issues), but on business and the economy. The trade war between the U.S. and China was initiated under President Trump. Under the Biden administration, it is being increasingly detailed and set in stone. This is notwithstanding the recent and positive meeting between Xi and Biden on the sidelines of the G20 in Bali.
2. **The Technology War:** The focus of Sino-American competition is increasing on technology. While national security concerns have always dominated U.S. Foreign Policy, these sweeping new rules represent a hardening of America's strategy. Preserving the U.S. edge in science and technology is no longer a 'domestic issue' or 'national security' issue, but both, according to National Security Advisor Jake Sullivan. The new rules came just a few weeks before the release of the U.S. National Security Strategy which deemed China to be its main competitor, particularly on the technology front.
3. **New Rules That Bite:** A slew of export controls were imposed by the Biden Administration in October 2022. These are aimed at constraining China's advanced computing and semiconductor sectors by limiting access to advanced chips, chip-making equipment, and personnel. The CHIPS Act also enhances U.S. efforts to build up this sector and increase its advantage in semiconductor capabilities. Biden has earmarked \$52.7 billion for semiconductor manufacturing and research, the bulk of which—\$39 billion—has gone into incentives for domestic manufacturing. This will include the Taiwan Semiconductor Manufacturing Company (TSMC) that is tripling its planned investment to \$40 billion for a plant in Arizona, which the Biden administration considers a big win.
4. **What is Explicitly Controlled:** Under the controls of the Bureau of Industry and Security (BIS), U.S. companies who want to export certain chips that can be used in modern weapons systems will have to obtain a license from the Department of Commerce. U.S. citizens are also now prohibited from working for China's chip manufacturing industry. In the interim, chipmakers such as TSMC, Samsung and SK Hynix have received one-year waivers from the BIS regulations.
5. **Implicit Control and Uncertainty:** While the focus is on "higher end" chips, the definitions are not watertight. In a number of cases, the U.S. and other allies have exercised a broader discretion to prevent China from acquiring companies in the sector, even if these are "normal" chips. In recent months, a Chinese company was forced to divest most of its stake in the UK's largest semiconductor maker, Newport Wafer Fab. In Germany, the acquisition of a chip factory by a Chinese company was retracted on the apparent realisation of "security" concerns.
6. **Echoes of America First:** With less heat and greater detail, the Biden Administration has carried forward the same sentiment in Trump's 'America First' policy. This was first evidenced when the Trump administration placed Huawei on its 'Entity List', effectively barring the Chinese tech firm from acquiring components or any technology from U.S. companies without government approval. This has now

extended to building supply chain resilience through 'homeshoring' and 'friend-shoring'. Thus, the prospect of technology bifurcation is increasingly likely, given the new wave of techno-nationalism mixed in with assertions of national security concerns.

7. **Alliances and Chips:** Building up American chip production capabilities and controlling global semiconductor supply chains will be pursued through agreements with US allies in Asia. The 'Chip 4' Alliance with Japan, South Korea, and Taiwan seeks to coordinate supply chain policies among the four countries. It remains to be seen if progress will be made given that the new curbs will cut off access to a large market for chip firms who rely on Chinese buyers. Japan is also doling out subsidies for the likes of TSMC to expand its production capacity in Japan.
8. **China's Response:** Response from Beijing appears to be muted with no explicit retaliation. This does not mean China has abandoned its technological ambitions. It is developing its own centre of production and creating a circle of allies through initiatives like the Belt and Road Initiative (BRI). The 20<sup>th</sup> National Congress of the Chinese Communist Party (CCP) sets out tech and innovation as the primary drivers of growth.
9. **Impact on Global Supply Chains and Global Innovation:** Other countries are attempting to homeshore chips production and supply chains. The EU has its own Chips Act, hoping to increase semiconductor production capacity from 10 per cent to 20 per cent of the global market by 2030. Japan, South Korea and Taiwan have forged similar strategies. These movements will be costly, leading to duplication and bifurcation and impeding innovation and cooperation. Furthermore, there is a great deal of caution and confusion surrounding sanctions, and companies are likely to incur additional cost in trying to navigate and monitor compliance.
10. **Other Sectors:** While high-end chips are the current focus of sanctions, it is not implausible for these restrictions to 'bleed' to other types of chips. Given the pervasiveness of the digital economy and the growth of the Internet of Things (IoT), consumer products such as smart cars and smart refrigerators may be affected. This could lead to higher costs and potentially limited access on the basis of security concerns. Green technologies and other high-tech sectors could similarly be controlled. There's a risk of protectionist stances on technology that can assist in carbon reduction. This is especially as rare earth elements and minerals are required.
11. **ASEAN and Chips:** Southeast Asia accounts for US\$200 billion in exports of chips with Singapore, Malaysia, Thailand, and the Philippines as active players in the semiconductor industry. There may be some supply chain shifts and some countries may seek to benefit from any production moves out of China. While increased U.S.-China tensions are unfavourable for the region, ASEAN is expected to be economically resilient with its ability to engage both powers and adapt to changes.
12. **Singapore Response:** Singapore continues to partner key companies across the value chain to invest in leading edge manufacturing capacities and workforce training (e.g., with GlobalFoundries, UMC, Siltronic, and Pall Corporation). Complementary activities such as R&D and supply chain management are available for manufacturers to convince them to deepen operations in Singapore. This notwithstanding the broader strategy for Singapore to engage on economic arrangements with both the USA and China.

I hope this note is of interest. Once again, I ask that you keep this confidential. If you wish to discuss the matter, we would be glad to hear your views.

Simon Tay  
Chairman