



Counterpoint Southeast Asia

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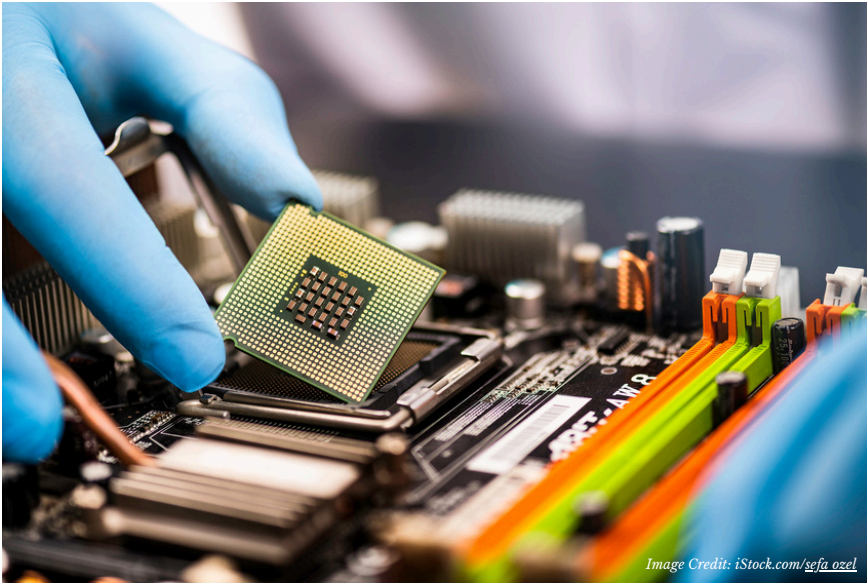


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How Will Southeast Asia Navigate the US-China Chip Competition?

By Yongwook Ryu

The tech sector is at the center of the strategic rivalry between the United States (US) and China. Under the Trump administration, the US targeted Huawei specifically, which soon became the most sanctioned Chinese company in the world. However, under the Biden administration, the focus of tech pressure has shifted to the semiconductor sector, with an ever-expanding list of export restrictions ranging from advanced logic, memory and AI chips, to equipment for chip fabrication.

The semiconductor industry is one of the very few remaining tech sectors where the US still maintains a

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Counterpoint Southeast Asia is published regularly by the Centre on Asia and Globalisation at the National University of Singapore's Lee Kuan Yew School of Public Policy. It seeks to answer major questions of strategic significance for Southeast Asia by bringing in diverse voices from around the region. Each issue will tackle one question from three different perspectives.

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decisive edge over China. While China is rapidly developing its own chip capabilities, it is currently in no position to challenge US dominance in the sector. Therefore, it is no surprise that the US has targeted the chip sector to put pressure on China, especially given the far-reaching implications of chips for tech, industrial and military advancement.

Amidst this escalating chip conflict between the two great powers, Southeast Asian states find themselves navigating a complex external environment, with difficult choices to make. Both the US and China are key technology and trade partners, making it undesirable for Southeast Asian states to take sides between the two. At the same time, to advance their own economic development, these Southeast Asian states are eager to collaborate with established tech powerhouses to bolster their own chip capabilities.

What are the perspectives of key Southeast Asian states on the US-China chip competition? How do they perceive the key challenges and potential policy options? And what implications will all this have for the region's future development? To shed light on these questions and other issues, the Centre on Asia and Globalisation (CAG) has invited three leading experts to share their views.

Jassie Hsi Cheng discusses the industrial policies of China and Taiwan, two critical players in the semiconductor industry. The former is the direct target of US chip pressure, while the latter is a critical player in chip fabrication with a complicated political

relationship with China. Cheng highlights the case of China's so-called Big Fund, an investment initiative which aims to help the country achieve a 70 percent self-sufficiency rate in chips by 2025—a goal that appears unlikely to be realised by the deadline. She argues that China's urgency stems from “deep concern over its reliance on foreign firms for critical steps in chip production.” Her assessment is that while the Big Fund has accelerated the growth of China's tech sector, with firms like SMIC reaping benefits through expanded operations, it has simultaneously triggered tighter export controls from the US, as well as domestic problems like corruption and misuse of the fund.

Taiwan's industrial policy, on the other hand, is aimed at maintaining its current edge in advanced chip fabrication. Concerns over Taiwan's dominance being undermined by challenges such as global talent competition and targeted talent acquisition and industrial espionage from China led to the passage of the Taiwan Chips Act in 2023. This legislation aims to encourage investment in advanced manufacturing processes and boost investor confidence amidst rising geopolitical tensions across the Taiwan Strait. Cheng concludes that the evolving technological landscape involving the US, China, and Taiwan is “opening new doors for Southeast Asia...with Malaysia and Singapore reaping the rewards.” This suggests that the effect of the US-China chip conflict will vary across Southeast Asia, with some states poised to benefit depending on their ability to adjust and adapt to the shifting global dynamics.

Lili Yan Ing offers a comprehensive analysis of Southeast Asia's role in the global chip industry highlighting the pivotal role of governments in nurturing and developing this vital sector, recognising its critical importance to the broader economy. In her essay with Ria Fortuna Wijaya, they argue that the Southeast Asian governments play a key role in attracting global investment, providing infrastructure, and encouraging innovation and R&D. However, they cautions that these efforts must be guided by a clear framework and a well-defined exit strategy in order to “prevent governments from being trapped in a cycle of providing endless incentives.”

Another aspect they focus on is the need to build a robust semiconductor supply chain within Southeast Asia. The disruptions the world experienced during the COVID-19 pandemic highlighted the necessity for resilient regional supply chains. Currently, Singapore and Malaysia are significant players in wafer fabrication/equipment and assembly, testing, and packaging (ATP), respectively. Ing and Wijaya argue that ASEAN countries should aim to cover the entire semiconductor ecosystem, including chip design and R&D, which would require collaboration among the ASEAN countries. Exactly how this will be done, and which country will specialise in which area, remains uncertain. Ing acknowledges that determining this will likely involve delicate political negotiations among the ten ASEAN member states, making it difficult to predict a clear path forward.

Manoj Harjani discusses Singapore, where the semiconductor industry accounts for approximately 40 percent of the nation's entire manufacturing value added. He notes that Singapore is less concerned with regional competition, as neighbouring countries such as Malaysia and Vietnam focus on different segments of chip production. Instead, Singapore's main concern is navigating current and future US export controls while ensuring the continued inflow of foreign investment into its semiconductor sector.

A major issue facing Singapore relates to the so-called “Singapore-washing,” which refers to Chinese companies relocating to Singapore to bypass US sanctions and access talent and technology otherwise restricted to them. This is not merely a hypothetical scenario, as the Singapore affiliate of Corad Technology was added to the Entity List in 2021 for its dealings with the Chinese government and defence industry. Harjani's assessment is that the Singapore government has so far managed these geopolitical issues with a clear-eyed approach and sensible goals. However, he cautions that Singapore will continue to face the challenge of balancing the repercussions of geopolitical tensions while adapting to the ongoing transformation within the chip industry to stay competitive. How Singapore navigates the troubled waters of the US-China chip conflict could offer valuable lessons to other states in similar positions.

All three experts agree that the US-China chip conflict presents both opportunities and risks

for Southeast Asia. They also stress the critical importance of the chip sector for the region's technological, industrial, and military development. Hence, they urge Southeast Asian governments to increase investment in the sector and to coordinate their policies in order to establish efficient and robust supply chains across the region.

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