



## **2022 Economic Security, Technology Controls and Nonproliferation Workshop**

Co-hosted by Pacific Forum and

Institute of International Relations, National Chengchi University

Virtual (Webex)

Dec. 15, 2022 (US) | Dec. 16, 2022 (Asia)

### **Key Findings**

On December 15, 2022 (US) | December 16, 2022 (Asia), the Pacific Forum and the Institute of International Relations at National Chengchi University, with support from Taiwan’s Ministry of Foreign Affairs, held a virtual workshop on economic security, technology controls, and nonproliferation. Nearly 50 participants from relevant government agencies, industry, academia, and nongovernmental organizations attended in their private capacities. Key findings from the session are below.

#### **Economic security as national security**

After several economically turbulent years and an emergent set of global challenges, governments have focused their attention on economic security. Conversations on issues such as supply chain resiliency, market access, and geoeconomic risk are increasingly being tied to discussions of national security. The convergence of these ideas in the term “national economic security” reveals a prescriptive stance in policymaking that is becoming more commonplace.

The recent passing of the US CHIPS and Science Act is an explicit signal of this trend. Designed to protect American national interests and revitalize domestic industry investment through the reshoring of critical technology supply chains, its presumed intention is also to hobble China’s development of dual-use (civilian and military) technologies. In the short-term, this reshaping of the industry can hurt those with global presence in semiconductor manufacturing, such as Taiwan, South Korea, and Japan, whose multinational corporations sell to Chinese markets. Farther into the future, they may ultimately benefit through the hampering of an emerging technology competitor and long-term threat to regional security.

#### **TSMC in focus**

A player at the crux of the conversation is the Taiwan Semiconductor Manufacturing Company. As the world’s foremost firm in advanced microchip fabrication, it is intimately woven into the fabric of upstream and downstream technology industries worldwide, including in China. The striking, yet narrowly targeted, export controls in the CHIPS Act will impact TSMC’s business

in mainland China, though new capital expenditures have already been moving toward friendlier shores. For example, TSMC has committed US\$40 billion to development in Arizona and \$8.6 billion for a plant in Kumamoto, while another Taiwanese chipmaker is investing \$5 billion to open a foundry in Singapore.

A question worth considering is whether these technology transfers erode Taiwan's "silicon shield" by decreasing the opportunity costs of Chinese security incursions. Sensitive information and trade secret leakage through recruited or compromised engineers is a regular cross-strait issue. Yet Taiwan has rebuffed multiple attempts by Chinese firms to acquire its critical businesses over the last couple decades thanks to lobbying by TSMC. For the time being, it remains that China's markets are essential for the health of Taiwan's economy, and China's own advanced computing industries cannot do without TSMC.

### **Strategic Trade Controls at present**

The semiconductor industry is only one example of the increasing political interest in strategic trade management. Since 2018, baseline levels of technology controls around the globe have been on the rise, with recent revisions and additions in Japan, India, the European Union, the United Kingdom, New Zealand, and the Republic of Korea. The overarching themes have been expansions of scope and trade authority powers, as well as greater focus on outbound investment reviews and exports. Strategic restrictions previously centered on the traditional industries of "core national interest" such as munitions and hazardous materials are seeing greater inclusion of "critical and emerging technologies" – semiconductors, biotech, batteries, software, etc.

### **Envisioning new trade control regimes**

The opportunity to codify good practices and behavior around strategic competition through trade controls best lies in establishing new multilateral technology control regimes rather than expanding existing channels. By modeling these new agreements on current regimes, but forming them on a basis of nations with similar values and interests, gaps within today's frameworks can be filled to protect competitive technology industries and deny exports that are feeding military advancements in aggressive, autocratic societies and rogue states. Reactionary, unilateral controls implemented by the US or other nations are ineffective or even counterproductive over time if depended upon too heavily, so establishing the next generation of trade control agreements is urgent.

As promising as this standard of international cooperation may be, the barriers to implementation are high. In the United States, resource-constrained trade control authorities remain preoccupied with the effects of Russia's war in Ukraine and other near-term priorities. In other countries, many agencies lack the authority and manpower to expand their initiatives, or even sufficiently enforce existing ones. There is concern that new regimes could undermine accords such as the UN Security Council's "nonproliferation agreement," Resolution 1540. The positioning of non-

aligned countries and regions will also play an important role in the outcome of these measures. At present, only four of the ten members of ASEAN possess full-fledged strategic trade management systems. For some, departure from the era of free trade for entanglement in great power politics is an unwelcome suggestion.

Finally, Taiwan's inclusion in any new trade regime is a highly contentious subject, even within the United States. Yet anything short of a best effort to integrate the semiconductor powerhouse into likeminded nations' policies is a missed opportunity. As a concrete suggestion, rather than approaching new potential agreements with overtly strategic language and objectives, forming a technical regulatory body from a commercial enforcement angle could improve Taiwan's chances of inclusion in the next generation of trade control frameworks.

*This report was prepared by Brandt Mabuni. For more information, please contact Crystal Pryor (crystal@pacforum.org). The findings reflect the view of the organizers; this is not a consensus document.*

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