

Executive Summary from “Big Tech in Taiwan: Beyond Semiconductors”

Several U.S. technology companies have embedded themselves in Taiwan’s economy by building data centers, opening R&D facilities, and contracting with Taiwanese manufacturing partners, even as China’s pressure on the island has intensified. Their footprints in Taiwan raise the question of how corporate assets and personnel might shape U.S. technology companies’ decision-making in a potential contingency.

This study traces the economic and operational linkages of 17 U.S. technology companies—firms that supported Ukraine after Russia’s 2022 invasion—to Taiwan, and examines how their entanglements with the island might impact their behavior in a future crisis.* Business calculations are only one factor in board-room decision-making, as reputation, public pressure, and corporate values also matter. That said, mapping the assets at stake helps illuminate the incentives and risks these companies would have to weigh if conflict erupts in the Taiwan Strait.

While many, if not all, of the companies rely to some extent on Taiwan-made semiconductors, mapping their vulnerabilities to chip supply chain disruptions is beyond the scope of this report.

Drawing on data on greenfield foreign direct investment (FDI), research and development (R&D) centers, data centers, supply chains, revenue, and job postings, this report finds that, of the companies that do business in China and Taiwan, the majority maintain more robust ties to the former. However, a number have enduring linkages to the island that could motivate them to intercede in some way:

- **Google, Apple, Microsoft, and Amazon have deeper ties to Taiwan than the remaining 13 companies.**
 - **Google** appears to have the most extensive footprint in Taiwan of all the companies analyzed in this report. Its FDI expenditures are the highest, and it maintains a data center and hardware-focused R&D facilities on the island. Though the extent to which Google relies on Taiwan for producing electronics is unclear, it has partnered with several local hardware

* The companies are: Amazon, Apple, Capella Space, Cisco, Clearview AI, Cloudflare, Fortem Technologies, Google, Maxar, Microsoft, Oracle, Palantir, Planet Labs, Primer, Recorded Future, SpaceX, and Tesla. Mandiant was acquired by Google in 2022, after the invasion.

manufacturers. The company appears to have the largest Taiwan-based labor force of any of the companies, as proxied by media reports and job postings. It is the only company of the 17 covered in this paper that appears to have a more robust presence in Taiwan than in China.

- **Apple** maintains a robust manufacturing presence in Taiwan, as around a quarter of its suppliers have at least one facility that produces components there. It maintains an R&D presence on the island and is reportedly developing a local data center.
- **Microsoft** recently operationalized a data center in Taiwan and maintains R&D operations on the island. Around a third of its top 100 suppliers are headquartered in Taiwan or are subsidiaries of Taiwan-headquartered companies.
- **Amazon** recently opened a data center in Taiwan and conducts some R&D on the island. A small percentage of its manufacturing partners are based there.

Although many companies are attempting to de-risk from China, most maintain stronger ties to the mainland than to Taiwan. Their dependence on China may make the decision to aid Taiwan more difficult than the decision to help Ukraine in the aftermath of Russia's full-scale invasion. The companies, however, would be forced to navigate complex relationships with both the Chinese and Taiwanese governments in a crisis that could put their physical assets and employees at risk.

Finally, despite intensifying geopolitical risks, some of these companies have expanded their presence in Taiwan in recent years. These investments reflect strategic decisions to access Taiwan's innovation and production capabilities, but they also come with liabilities. While exposure to supply chain shocks and semiconductor dependence are the most acute hazards, the overall risk to these companies from Taiwan-based operations remains limited compared to that from their more extensive entanglements in China.

For more information:

- Download the report: <https://cset.georgetown.edu/publication/big-tech-in-taiwan/>
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