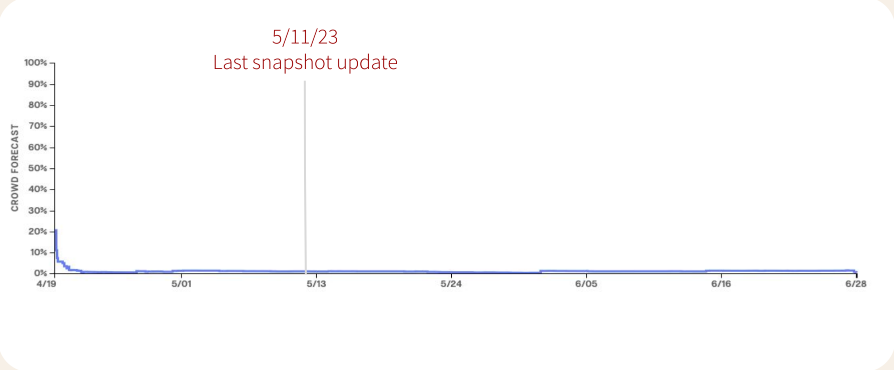
Issue Report: Potential disruptions to Taiwan's semiconductor supply chain

As of 28 June 2023

Will the People's Liberation Army invade, blockade, or attack the main island of Taiwan in the next six months?



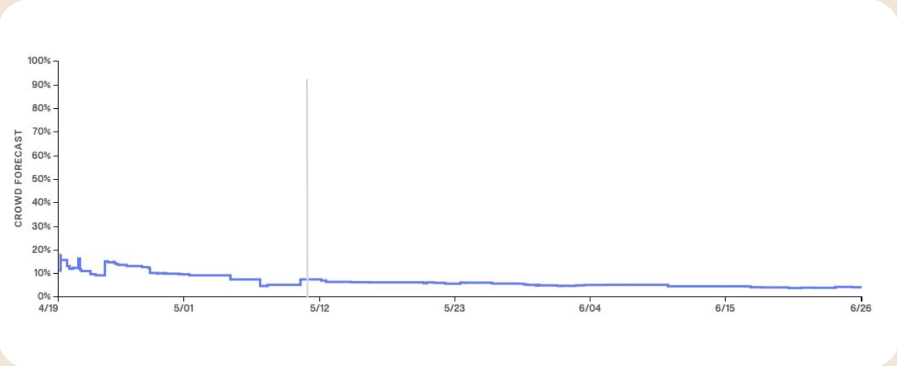
1% chance

No change since 5/11/23

Based on 251 forecasts

See detailed forecast rationales • See consensus trend and crowd profile

Will any TSMC fab in Taiwan be shut down for at least one day because of a non-scheduled emergency by 31 March 2024?



4% chance

Down 2% from 5/11/23

Based on 107 forecasts

See detailed forecast rationales • See consensus trend and crowd profile

For each of the 5 quarters listed, what is the probability that North America's share of TSMC's net revenue will be less than 40%?

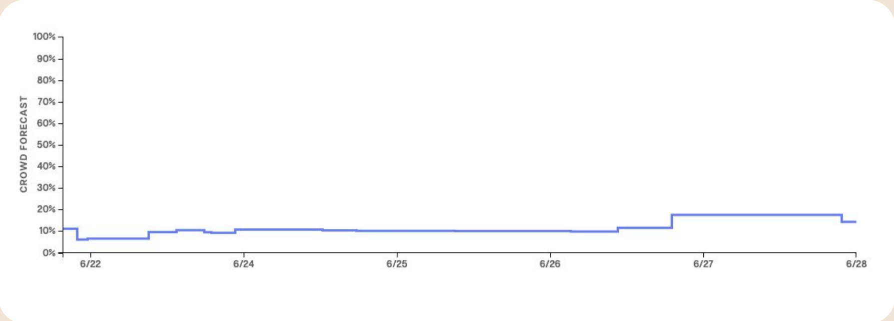
	Q2 '23	Q3 '23	Q4 '23	Q1 '24	Q2 '24
% chance	**0%**	**0%**	**1%**	**2%**	**2%**
change since 11 May	↓ 1%	↓ 1%	↓ 1%	↓ 1%	↓ 2%

Based on 59 forecasts

See detailed forecast rationales • See consensus trend and crowd profile

NEW ON INFER

Will Australia issue a Level 3 or Level 4 travel advisory for Taiwan before 1 July 2024?



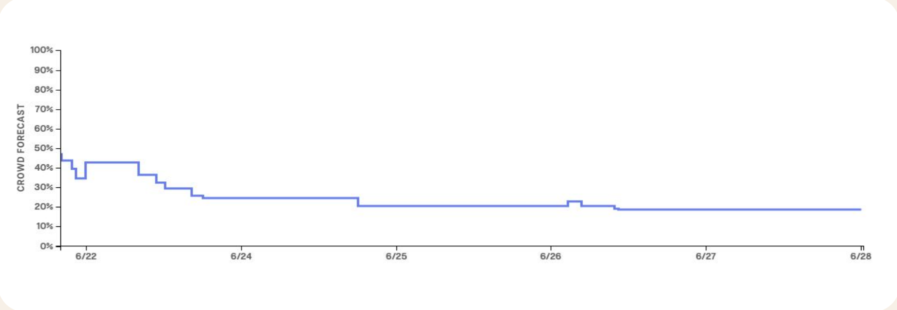
14% chance

Based on 16 forecasts

See detailed forecast rationales • See consensus trend and crowd profile

NEW ON INFER

Will the price of the rare earth compound dysprosium oxide equal or exceed $1000 per kg before 1 July 2024?



19% chance

Based on 16 forecasts

See detailed forecast rationales • See consensus trend and crowd profile

APPENDIX: Forecaster Rationale Summaries

This section presents a high-level summary of forecasters' rationales for each question in the report. Rationales can be found in full by clicking "See detailed forecast rationales", and a list of sources linked within rationales can be found by clicking "See source links". The data in this report is from 14 April through 28 June 2023.

A. Forecast Questions

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Will the People's Liberation Army invade, blockade, or attack the main island of Taiwan in the next six months?

Crowd Forecast: 1% chance | See detailed forecast rationales | See source links

Higher probability forecasts discuss...	Lower probability forecasts discuss...
• **Incidental crisis or provocation**: A crisis or provocation, such as a declaration of de jure independence by Taiwan or a nationalist group acting without government sanction, could prompt an impulsive reaction from China using military force. China has consistently warned that such a move would cross a "red line". • **Russia-Ukraine precedent:** Russia's invasion of Ukraine in 2022 may have emboldened China by exposing the West's unwillingness or inability to directly intervene against military aggression. China may view this as a signal that military conquest or annexation is an acceptable strategy to pursue territorial ambitions and act similarly against Taiwan. • **Domestic pressures**: China faces domestic troubles, like a slowing economy, which could lead China to act against Taiwan in order to stir nationalist sentiments and distract citizens from problems at home. • **Pro-independence Taiwanese presidential candidates:** Elections in Taiwan, including the upcoming January 2024 election, could motivate China to take action, especially if a pro-independence candidate were to win. China may want to forestall further steps toward Taiwanese independence. • **Militant displays**: China could launch a limited blockade or "attack" as a show of force to intimidate Taiwan, test U.S. resolve, and advance China's territorial claims. While unlikely to lead to full-scale war, China's recent military exercises simulating a blockade of Taiwan highlight this possibility.	• **Economic consequences for China:** The economic costs and consequences of invasion for China would likely be severe. This could include economic sanctions, loss of trade with Western countries, and damage to global supply chains that rely on Taiwan's semiconductor industry. China's economy is heavily dependent on exports and trade with Western nations, so military action against Taiwan could significantly undermine China's economic interests. • **Destabilization concerns:** Military action against Taiwan would damage China's image on the global stage and relationships with other countries. It could be seen as an act of aggression that threatens regional stability. • **Threat of U.S. involvement:** The U.S. has declared that it would defend Taiwan in the event of an invasion. China does not want to provoke a direct war with the U.S. military, especially with the risk of nuclear escalation. • **Difficulty of invasion**: China's military capabilities are still limited, and an amphibious invasion of Taiwan would be very difficult. There is a possibility of high casualties and a protracted conflict that China may not be able to win decisively. • **"Sharp power" and gray zone tactics**: China's current strategy of coercion and censorship against Taiwan has been relatively successful and sufficient for achieving China's goals. These tactics are less provocative but allow China to exert pressure and influence over Taiwan. An outright military attack would represent an escalation that is not currently necessary or consistent with China's broader strategy.

Will any TSMC fab in Taiwan be shut down for at least one day because of a non-scheduled emergency by 31 March 2024?

Crowd Forecast: 4% chance | See detailed forecast rationales | See source links

Higher probability forecasts discuss...	Lower probability forecasts discuss...
• **Geopolitical tensions:** Tensions between China and Taiwan could escalate into a military conflict that could disrupt TSMC operations. • **Natural disasters or accidents:** There is a small possibility of an unexpected disaster like an earthquake, typhoon or fire causing a shutdown. • **Social unrest:** Protests or social unrest could lead to a shutdown. • **Cyberattacks:** A cyberattack targeting TSMC, like the WannaCry ransomware attack in 2018, could cause a shutdown.	• **TSMC's preparedness:** TSMC's contingency planning and system hardening may prevent any unforeseen events from causing a prolonged shutdown. • **Low base rate:** The probabilities of events like natural disasters, cyberattacks or protests causing a shutdown are low, and there is no imminent event that could cause a shutdown. • **Possible inaction by China:** Geopolitical tensions may not escalate and China may choose not to take action against Taiwan or TSMC.

For each of the 5 quarters listed*, what is the probability that North America's share of TSMC's net revenue will be less than 40%?

**The listed quarters are 2023 Q2, 2023 Q3, 2023 Q4, 2024 Q1, and 2024 Q2.*

Highest Crowd Forecast: 2% (2024 Q2) | See detailed forecast rationales | See source links

Higher probability forecasts discuss...	Lower probability forecasts discuss...
• **Gradual decline:** If North American revenue growth stalls while revenue from China and other regions continues growing quickly, North America's share could decline over time. • **Geopolitical tensions:** A blockade of Taiwan could potentially disrupt TSMC's global operations and supply chains. • **Cyclical variability:** Quarterly revenue shares can fluctuate, so even though the long-term trend is stability or growth in North America's share, a single quarter could potentially drop below 40% due to normal business cycles. • **Economic recession:** A recession in North America could temporarily reduce chip demand and TSMC's revenue from the region.	• **Status quo:** North America has accounted for at least 53% of TSMC's revenue each quarter over the last 5 years. Given this high and steady share, it is difficult to envision major changes that would reduce this share below 40% in the next year. • **TSMC investment in North America:** TSMC is investing heavily in the U.S., including building a new fab in Arizona that will start production in 2024. This significant investment suggests TSMC expects strong and continued demand from U.S. customers. • **Strong North American customer base:** Many of TSMC's major customers like Apple, NVIDIA, and Intel are U.S. companies. This customer base is unlikely to change dramatically in the short term. • **Geopolitical disruption unlikely:** The U.S. would likely defend Taiwan militarily if China invaded, and China is unlikely to blockade Taiwan given their economic dependence on TSMC chips. Either scenario could impact TSMC's global revenue, not just from North America. • **Supply chain inertia:** It will take time for U.S. companies to diversify supply chains away from TSMC, so its North American revenue share is unlikely to decline dramatically in just the next year.

B. The Forecasters

The forecasters who have participated thus far in these questions have the following profile:

- 131 total forecasters
- 49% are “INFER Pros” - participants selected to be part of our paid Pro Forecaster Program for their accuracy track record of at least 1 year on INFER or other similar forecasting sites or programs.

Demographics

Country	Ratio
USA	42%
Canada, UK, Australia, New Zealand	8%
Europe	24%
Latin America, Caribbean	15%
Asia	10%
Africa	2%

C. Report Methodology

Rationales of INFER forecasters have been selected and summarized by Claude, an AI assistant tool created by Anthropic. To build the rationale summaries presented in this report, we provided forecasts (probabilities and narrative rationales) to Claude to summarize into bulleted lists of arguments. We then manually edited the bulleted summaries for accuracy and readability.

Each question in the report also includes links to the crowd forecasts, rationales, and source links used by forecasters.