The China Challenge
Strategies for Recalibrating the U.S.-China Tech Relationship

By Martijn Rasser, Elizabeth Rosenberg, and Paul Scharre

The United States and China are strategic competitors, and technology is at the center of this competition, critical to economic strength and national security. The United States benefits from collaboration with China—including student and tech expert exchanges, certain Chinese investments and interlinked supply chains, and bilateral trade flows. However, the United States is vulnerable to Chinese threats in the technology sector that would compromise U.S. security, privacy, and a competitive tech industry. The U.S.-China tech relationship requires a recalibration. Congress and the administration can advance U.S. national security and competitiveness by undertaking major investments in the U.S. tech sector, establishing new rules for technology development and trade, and increasing collaboration with allies.

Promote American Innovation

- **Increase research and development (R&D) spending.** The United States should increase total national R&D spending from 2.8 percent to 4 percent of gross domestic product (GDP) and federal R&D spending from 0.7 percent to 1.2 percent.

- **Increase science, technology, engineering, and math (STEM) education and training.** The U.S. government should invest in improved STEM education and professional development for teachers. Congress should incentivize private industry workforce training in STEM.

- **Attract foreign STEM talent.** Congress should raise the caps for H1-B visas and remove the cap for advanced-degree holders. Congress should also create new ways to recruit high-skilled immigrants to tackle acute talent shortages for STEM jobs.

- **Secure vulnerable supply chains.** The United States should diversify and secure supplies for key technology inputs such as rare earth elements and semiconductors by investing in domestic industry and working with partners to build trusted international supply chains.

Protect Key Areas of Competitive Advantage

- **Establish multilateral export controls on semiconductor manufacturing equipment (SME).** The United States should protect its competitive advantage in hardware by establishing multilateral export controls on SME and design tools in partnership with key allies Japan and the Netherlands.

- **Establish end-use based export controls for China**. The U.S. Commerce Department should develop export control regulations for U.S.-origin and U.S.-developed products with end uses at odds with American security interests and values, such as human rights abuses or adversary military uses.

- **Expand export control regimes to include more People's Liberation Army (PLA)–linked entities.** The National Security Council should lead an interagency process to identify PLA-linked civilian entities and add them to the Commerce Entity List to block their access to

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U.S.-origin products. The United States should also prohibit F or J visas for PLA employed, funded, or sponsored individuals.

- **Ensure sufficient resources for counter-espionage investigations.** Congress should ensure the FBI and Department of Justice are sufficiently resourced to conduct counter-espionage investigations, particularly in Chinese language resources and scientific and technical expertise.

- **Develop better collaboration with universities.** The FBI should increase collaboration with universities to counter espionage threats. This should include reestablishing the National Security Higher Education Advisory Board or similar body.

- **Improve visa screening.** The U.S. State Department, FBI, and intelligence community should develop enhanced criteria for visa screening to identify espionage risks and request additional authorities from Congress, if required. These criteria should go beyond pending legislation that pertains to specific research or PLA-linked individuals.

- **Create a new sanctions authority to target Chinese firms that steal U.S. technology.** The Treasury Department, working with the Commerce and State Departments, should cut off from the U.S. financial system Chinese firms that engage in intellectual property (IP) theft.

Partner with Other Democratic Technology Leaders

- **Create a new international regime for technology policy**. The United States should lead the creation of a new international organization for technology policy comprised of democratic, technology-leading nations ("Tech-N"). Multilateral cooperation is needed to maximize effectiveness in R&D, supply chain security, standards-setting, export controls, and countering illiberal uses of technology.

- **Engage more proactively in international technology standards-setting.** The Office of Science and Technology Policy should establish an interagency working group on international technology standards. The Departments of State, Commerce, Justice, Defense, and National Institute of Standards and Technology should coordinate U.S. government action to counter Chinese efforts to exert political influence within international standards-setting bodies.

- **Lead internationally on norms and principles for the use of emerging technologies.** The United States should continue to lead in establishing norms for using emerging technologies such as artificial intelligence. The United States should work with allies and partners to codify and export these norms to shape how the world adopts emerging technologies.

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