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The Rise of US Economic Sanctions on China: Analysis of a New PIIE Dataset

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Economic Measures Restricting Commerce with China are Proliferating

- Economic statecraft has become a key tool for addressing national security, human rights, and economic concerns about China, with unclear consequences and effectiveness
- Increasingly extraterritorial: restricting non-US firm ties with or non-US exports to China
- Some apply restrictions countrywide or on all Chinese entities anywhere in the world:
  - National security reviews on investment
  - Advanced semiconductors and equipment/software to make them
  - Bans on import/sale of Chinese connected vehicles and software
- We focus on export controls and financial sanctions on *specific* Chinese entities, where US policy has changed drastically since 2017.

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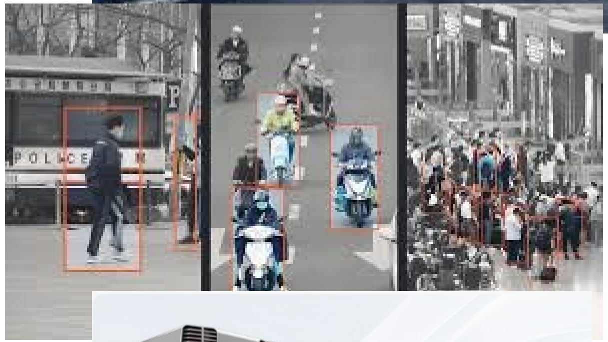
US Legitimate Concerns Driving Sanctions Rise on Chinese Companies

- South China Sea and other military activity
- Human rights in Xinjiang, related to surveillance tech firms using US technology
- Hong Kong autonomy
- Military-Civil Fusion: is an export or commercial firm acting for itself or for China's military?
- CN catching up or leading on advanced technology with military applications
- More difficult to distinguish "dual use" from commercial tech (same chip now can train algorithm to recommend movies or test hypersonic missiles)



AI Cluster

Our Contributions

1. Create publicly available dataset of all Chinese firms on four key sanctions lists to provide foundation for evaluating effectiveness
   1. Export Controls: Entity list and Military End User List
   2. Financial Sanctions: Specially Designated Nationals (SDN) and non-SDN Chinese Military-Industrial Complex Company Lists
2. Analyze trends by presidential term, showing continuity from Trump to Biden in quantity of CN entities targeted and evolution of concerns driving sanctions
3. Classify targeted firms by industry, allowing us to see which sectors are targeted
4. Correct for double counting in the entity list, reducing total targeted firms by 42%
5. Include at least some Chinese firm subsidiaries abroad

Four Key Regimes Targeting Chinese and other Entities

Purpose and impact of selected export control programs limiting US trade

Export control program	Jurisdiction	Purpose and criteria	Impact
Entity List	Bureau of Industry and Security (BIS), Department of Commerce	Prohibit exports to entities engaged in "activities contrary to US national security and/or foreign policy interests" or entities that pose a risk of diverting US exports to prohibited uses or users.	Imposes specific licensing requirements on exports to entities listed, in addition to general license provisions. Applies only to listed entity.
Military End User (MEU) List	Bureau of Industry and Security (BIS), Department of Commerce	Restrict exports to buyers who are determined to be military end users in China, Russia, or Venezuela.	Imposes specific licensing requirements on exports to entities listed, in addition to general license provisions. Applies only to listed entity.
Specially Designated Nationals and Blocked Persons (SDN) List	Office of Foreign Asset Control (OFAC), Department of the Treasury	Block commerce with entities involved in proscribed activity, including narcotics trafficking, human rights abuses, nuclear proliferation, and aiding adversaries.	Financial sanctions can include freezing of assets in the US and blocking of financial transactions with listed firms. Secondary sanctions apply to firms that deal with sanctioned entities. Covers not just an entity but also its subsidiaries.
Non-SDN Military-Industrial Complex (CMIC) List	Office of Foreign Asset Control (OFAC), Department of the Treasury	Block US investment in firms that operate in the defense or surveillance sector of China.	Restricts US entities from investing in publicly traded securities of listed entities or funds with significant exposure to them. Applies only to listed entity.

Bureau of Industry and Security

OFAC
Office of Foreign Assets Control

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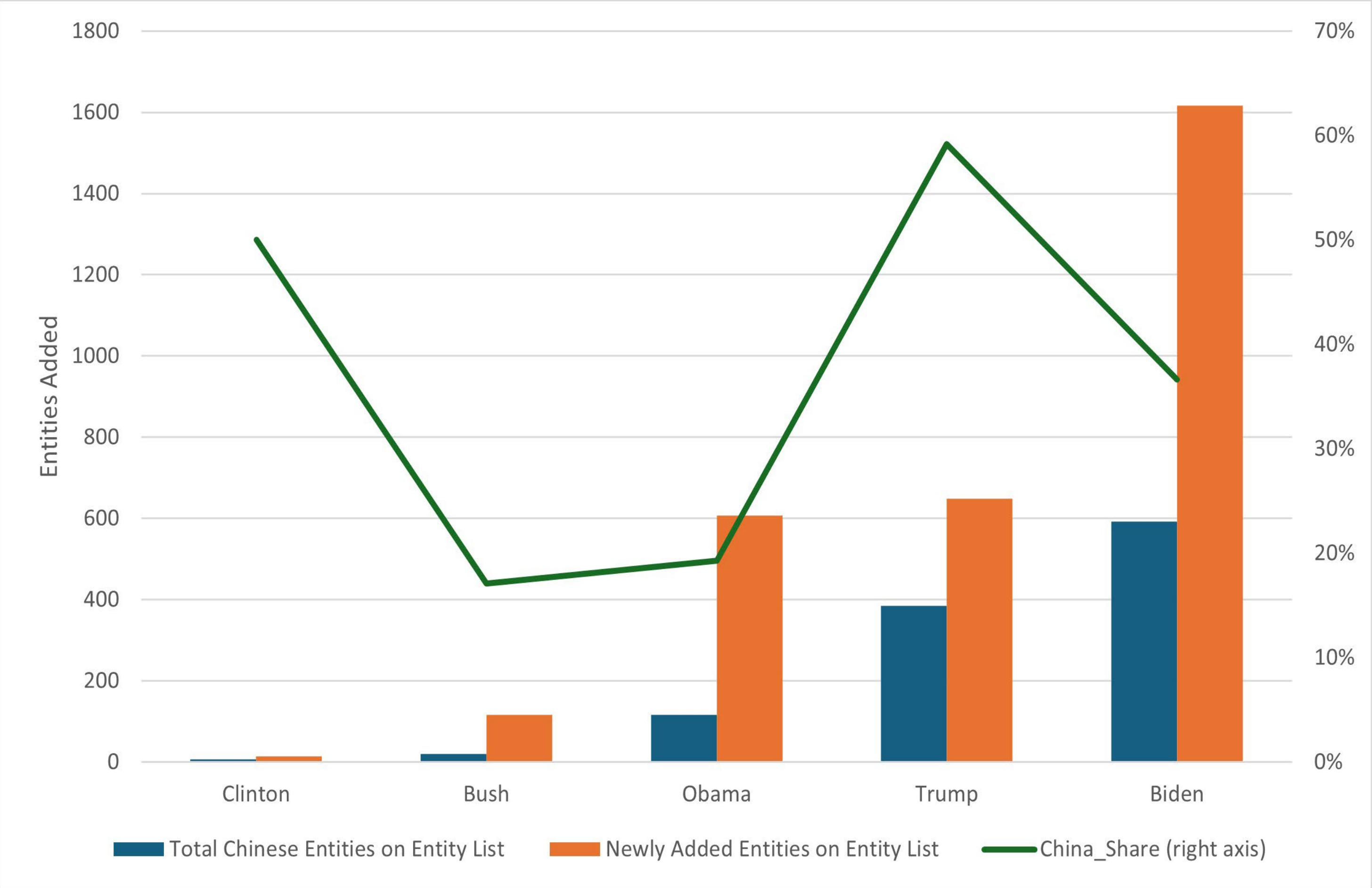
Export Controls: Entity List

- Presidential trends:
  - Obama pioneers entity list, but rarely used against China
  - Trump used more against China, less against others
  - Biden uses far more both on China & others (e.g. Russia)
- Targeted major CN tech firms
- Can be more surgical than financial sanctions, cutting off specific technology to specific subsidiary
- Total CN parent groups on entity list as of May: 525, total entity list: 912



SDN Listing: China Mostly Targeted for Helping Others Deemed Adversaries

Frequency of Specially Designated Nationals and Blocked Persons (SDN) List designations targeting China, by presidential term and program

	Belarus	Russia	Cyber crime	North Korea	Election interference	Human rights	Hong Kong	Iran
Bush 1st term	0	0	0	0	0	0	0	0
Bush 2nd	0	0	0	0	0	0	0	2
Obama 1st	0	0	0	1	0	0	0	5
Obama 2nd	0	0	0	2	0	0	0	11
Trump	0	1	8	75	6	10	25	87
Biden	1	74	5	20	0	19	18	101

	Iraq	Weapons of mass destruction	Terrorism	Narcotics	Syria	Transnational crime	Ukraine	Venezuela
Bush 1st term	0	0	2	0	0	0	0	0
Bush 2nd	0	2	0	11	0	0	0	0
Obama 1st	0	3	1	0	1	0	0	0
Obama 2nd	0	21	7	4	2	0	0	0
Trump	1	33	6	16	0	5	6	2
Biden	0	57	27	49	0	1	1	0

Intensity of sanctions

110 88 66 44 22 0

Note: An entity may be sanctioned under multiple program designations. The total number of designations shown thus exceeds the number of entities on the SDN List.
Source: Authors' calculations based on listings from the Office of Foreign Assets Control (OFAC), US Department of the Treasury.

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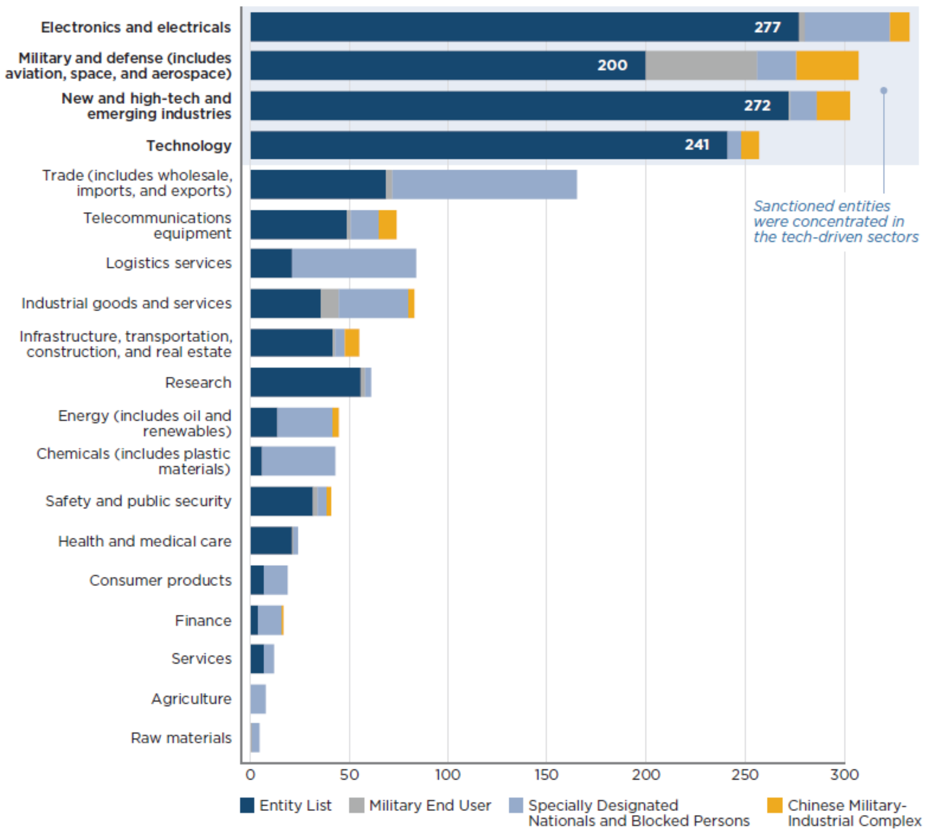
Classifying Targeted Firms by Industry

- Why Do We Include Industry in the Dataset?
  - To understand the impact of sanctions on specific sectors
  - To identify trends: Which industries are targeted by sanctions
  - To pinpoint sectors critical to military-civil fusion strategies
- What Are the Limitations of Existing Industrial Standards (BICS, NAICS, etc.)?
  - Multidimensional nature: Huawei technologies
  - Poor classification of SOEs: China State Shipbuilding Corporation
  - Missing niche dual-use technologies: supercomputing, satellite
- What did we do to bridge the gap?
  - Assign companies to multiple industries
  - Differentiate industries by specific technologies
  - Reclassify strategic industries under “Military & Defense” sector (e.g. satellite, navigation, marine, geospatial, aviation)

Number of Chinese entities sanctioned by the United States, by sector and list

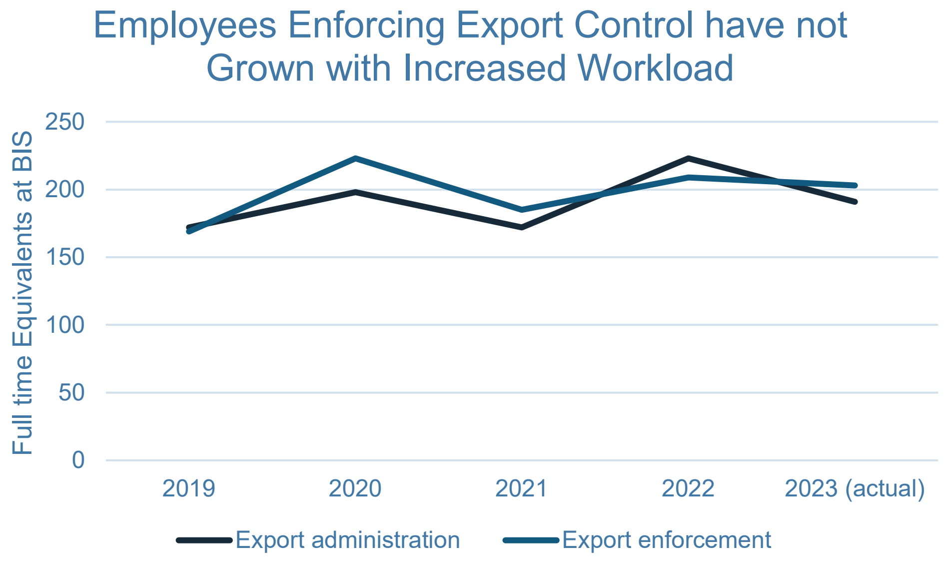


Note: Data are as of May 28, 2024. The total number of entities across all sectors exceeds the total number of listed entities, because some entities are categorized under multiple sectors. Appendix table A.1 identifies the industries included within each sector.

Source: Authors' calculations based on listings from Office of Foreign Assets Control (Specially Designated Nationals and Blocked Persons and Chinese Military-Industrial Complex Lists), and US International Trade Administration (Entity and Military End User Lists) as of May 28, 2024.

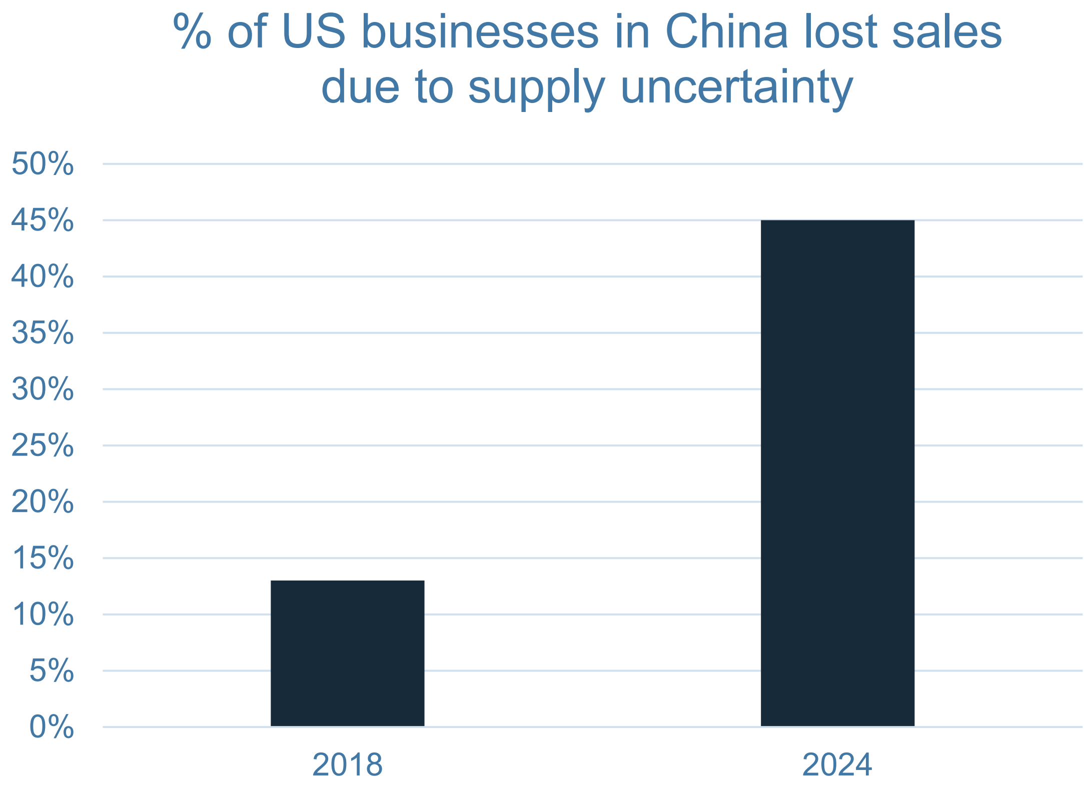
Administrative Challenges

- Bar for entity listing and explanations often vague
- Need to ensure rigorous, independent process to ensure credibility (e.g. ensure firms cannot get non-threatening firm listed to take out their competition)
- Past listings (CMIC) have been found to be “arbitrary and capricious” by US judges when challenged, but entity list is virtually impossible to challenge in court
- Serious shortage of enforcement resources as targets are more numerous, larger, and more sophisticated in developing workarounds. Often rely on firms to report themselves or competitors



Governance Challenges

- US Government lacks rigorous evaluation of economic cost, while controls impact on civilian economy has risen substantially
- NY Fed study of impact on export control listings:
  - US suppliers to entity listed Chinese firms lost $130b in market cap after customers listed
  - No evidence of reshoring or friendshoring: lost sales not compensated by sales at home or to US allies
- Long term sanctions leverage depends on US firms being indispensable leaders in technology and finance. If sanctions go too far, can come at cost to this objective
- Further we go on sanctions, more difficult to convince allies they are worth the cost



Recommendations

- Develop explicit framework for assessing economic cost & benefits, ex-ante and ex-post
  - Treasury now has a sanctions economist, but Commerce BIS should have similar capacity
  - Need investment in technology upgrades and new skills at BIS
- Recognize market implications of non-market sanctions objectives
  - Security effectiveness depends on actions of firms with incentive to avoid controls: changes in supplier & customer relationships, where they do R&D, etc
  - Different sanctions can enhance or erode US leverage over supply chains and finance
- Maintain multiple lists to avoid collateral damage
  - Retain SDN for most acute threats and worst-case scenarios
  - Each list has own sectoral focus and proportional impact to the rationale for listing. Better coordination can be useful, but should not create presumption that being on one list merits addition to another

Potential Effects of Maximalist Sanctions

- Export controls
  - Design out of US firms from global supply chains (limited so far due to chokepoints)
  - Non-US firms gain competitive advantage against US firms & more resources for R&D
  - Reduced visibility into and leverage on China long-term
- Sanctions
  - Disruptive decoupling from Chinese technology forced on other countries, with negative diplomatic consequences for US
  - Larger scale efforts to build alternatives to US dollar and US financial networks (not just BRICS)
- Chinese retaliation
  - Ministry of Commerce recently released export control rules that add option for extraterritoriality
  - Retaliation with own controls and sanctions could have severe effects on US supply chains from consumer tech to defense
  - Responded with own export bans plus warnings on use of US chips after latest controls