

Race to Lead: How China's Government Interventions Shape U.S.-China Industrial Competition

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China has become a serious competitor in economic sectors previously dominated by U.S. industry. In recent years, trade conflicts between the two countries have become more common, especially given the view that China's government intervenes a great deal to help domestic firms compete. New research explores to what extent industries targeted and subsidized through China's Five-Year Plans (FYs) have displaced U.S. firms up and down the value chain.

The data. Researchers collected data on 1,643,000 U.S. firms and 1,100,000 Chinese firms from the U.S. Census Longitudinal Business Database (LBD) and the China Industrial Enterprises Database (CIED). Both databases capture firm-level characteristics and changes in economic activities over time, including firm births and deaths, employment, sales, exports, total assets, and others. China's CIED database also includes data on the amount of state subsidies firms receive. Researchers then organized the merged data from both countries according to industry sector and identified those sectors that China's government targeted for development in each of its FYs from 2001, 2006, 2011, and 2016. Researchers supplemented this database with job posting data from 1.28 million U.S. firms between 2007 and 2020 from Burning Glass.

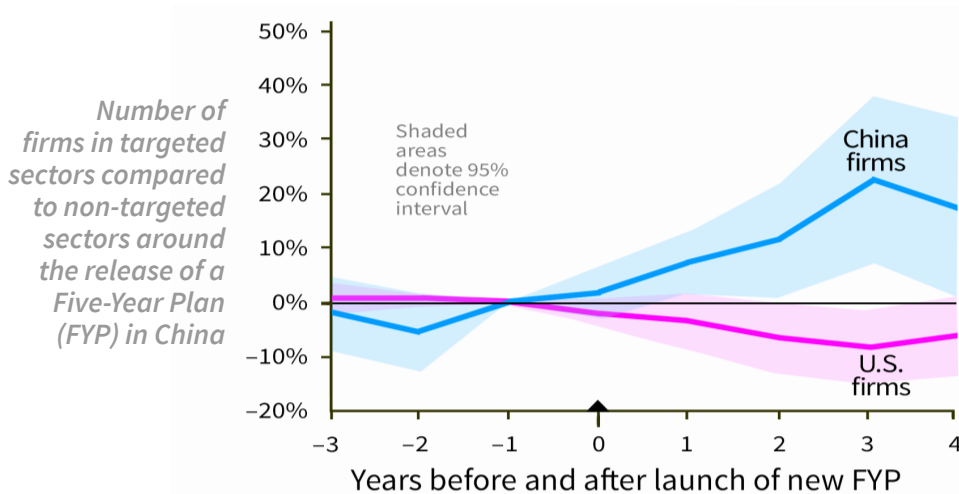
INSIGHTS

- Between 1998 and 2020, a rise in China's firm births is correlated with higher firm exits and slower growth one and two years later for U.S. firms in corresponding sectors.

- Sectors targeted and subsidized through China's Five-Year Plans experience a surge in new firms, while the corresponding sectors in the U.S. see declines in firm births, output, employment, and earnings.

- China's earlier Five-Year Plans tend to displace labor-intensive sectors in the U.S., while more recent ones displace capital-intensive sectors in the U.S.

China's firms displace same-sector U.S. firms. To examine the relationship between trends in industrial activity in China and the U.S., researchers compared the rates of firm births, firm exits, and employment by sector in the U.S. and China between 1998 and 2020. They found that a rise in China's firm births is correlated with higher firm exits and slower growth one and two years later for U.S. firms in corresponding sectors. Further, they found that a 1% rise in employment in China's firms predicts a 0.1% decline in employment in the corresponding U.S. sector.



When disaggregating by firm ownership type, researchers found that this displacement dynamic appears driven by China's private firms rather than by state-owned enterprises. China's private firms proliferated rapidly during the period of study and received over half of all government subsidies (53.5%), a higher share than state-owned enterprises (37.7%) and foreign-owned firms (8.8%).

Government subsidies may bolster China's firms in targeted industries at the expense of U.S. firms.

Prior to the release of a FYP, U.S. industries that were counterparts to those supported by the government in China exhibit growth trends similar to unsubsidized industries in China. In other words, the evidence suggests that U.S. industries were not outcompeted by subsidized Chinese firms prior to their being subsidized.

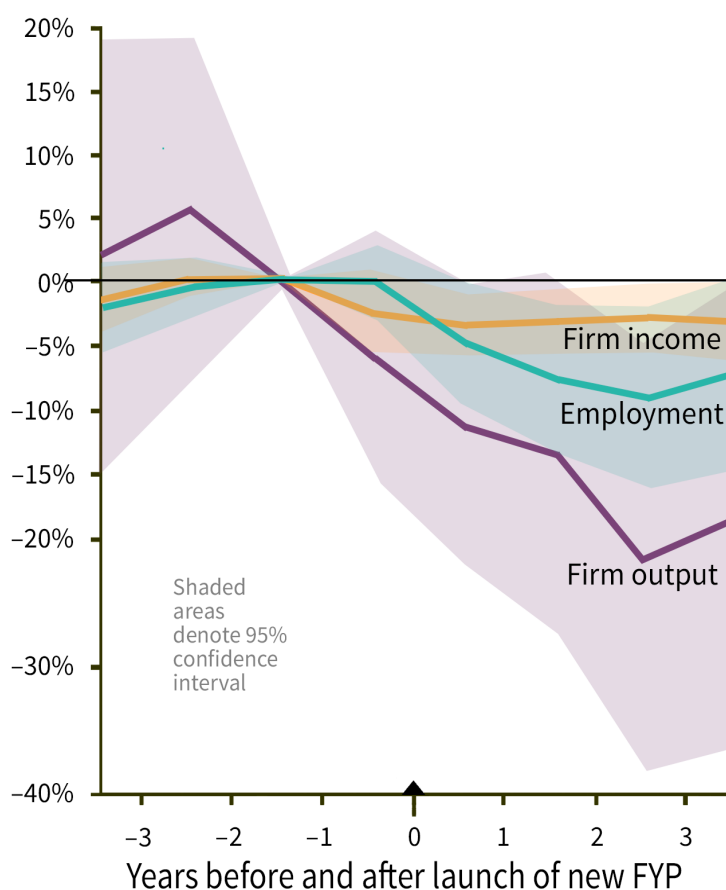
However, in the years following a new FYP, researchers found that the number of China's firms in targeted sectors surged by 15% compared to non-targeted sectors, while firms and total job postings at U.S. firms in the corresponding sectors experienced a roughly 5% decrease. U.S. firms in these sectors also experienced a decline in earnings and output.

The strength of the correlation held even when removing China's fastest-growing firms from the analysis, suggesting that the changes were driven by government targeting and subsidies rather than "natural" dynamism occurring irrespective of government support. Researchers also found that capital markets in the U.S. failed to predict any decline in fortunes for U.S. firms in sectors later targeted by a FYP, further suggesting that competition with China's newly-subsidized firms played a role in the observed decline at U.S. firms.

China's industrial policy differentially affects U.S. firms, industries. Certain U.S. firms and industries were able to offset the negative impact of China's industrial policy. U.S. firms that depended heavily on China as a source of revenue and those that relied heavily on China's imports benefited somewhat from rapid growth in the upstream sectors fostered by China's industrial policies. In addition, while firms with limited presence in China suffered significantly, some U.S. firms offset the negative effects by offshoring production capacity to China.

The impact of the industrial policies embedded in the FYPs shifted over time from lower-skilled industries to higher-skilled industries. Early FYPs (i.e., the 10th and 11th plans covering 2001 to 2010) tended to displace production in labor-intensive industries in the U.S. such as consumer electronics, textiles, and furniture manufacturing. However, the more recent FYPs (i.e., the 12th and 13th plans covering 2011 through 2020) squeezed higher capital-intensive industries like telecommunications and clean energy.

Outcomes for U.S. firms in targeted sectors compared to non-targeted sectors around the release of a Five-Year Plan (FYP) in China



China's government support for industry important in its race to lead. The analysis shows that China's government support plays a significant role in enhancing the competitive standing of China's firms. Decisions by China's government to elevate its global prowess in certain industries has led to the relative decline of such industries in the U.S., not just in low-skill "sunset" industries from which the U.S. may have been happy to retreat, but also in higher-skill industries that both countries are eager to lead.